Canada Commerce

Nov./Dec. 1974

New Trade Posts Opened

If you have business interests in Saudi Arabia, Canada now has a Trade Commissioner stationed in Jeddah to look after those interests and to help those seeking business there. He is J. Pierre Lefebvre, Commercial Secretary, and his right-hand man is S.A.A. Mubarak, Commercial Officer.

Mr. Lefebvre cautions Canadian businessmen that communications between Saudi Arabia and Canada can take longer than expected. A letter may take up to 10 days, a cable a minimum of two days. The Trade Post also follows the Hegira week, which means that it is open from Saturday to Wednesday and closed for a Thursday and Friday weekend. That means that a cable leaving Canada on a Monday will not reach Jeddah until Wednesday and the reply most probably will not be sent until Saturday, reaching its destination in Canada on the Monday.

Telephone communication, however, via satellite between Jeddah and Canadian cities is usually good.

Although mail service is also usually reliable, if a businessman has not received a reply to his letter within a month he should send a copy in case his original letter has been lost.

The address of the post: Commercial Section, Canadian Embassy, Commercial and Residential Centre, P.O. Box 5050, Jeddah, Saudi Arabia. The telephone number is 34597/8 and the cable is DOMCAN JEDDAH.

FINLAND

Another new post to open is in Finland, where C.R. Donley will be arriving at the end of this year or early in January as Commercial Secretary. But mail can be sent there now to him at Commercial Section, Canadian Embassy, Pohsois Esplanadi 25B, Helsinki 10, Finland.

The telephone number at the post is 1114, and the telex number 121363.

Canada Commerce

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In This Issue

South Africa may be far away, freight and transport costs may pose problems, but there are markets waiting for those Canadian businessmen wise enough to realize that trade outlets should be diversified. Canada's total exports to South Africa in 1973 were worth $59.2 million, up from $43.8 million the year before. This month the Canadian Trade Commissioners in South Africa report on markets available and opening up in this huge land of sunshine. There should be opportunities there for your firm. Perhaps one of your neighbours already knows the market — last year exports to South Africa went from every province in Canada. And there should be no language problems involved.

Turning our faces the other way, we also take a look at the Caribbean markets this month. This area is certainly closer to home and easier to reach, and there are many who may feel that this would be a deciding factor. Freight costs, however, are included in the over-all price of the commodity, and if neighbours and competitors can sell competitively in overseas markets, why not us?

The Carribbean is certainly an interesting area and one of the most interesting islands, at least from the point of view of trade, is Jamaica. Our Kingston office reports that despite a rather poor growth rate last year, the island has great plans for its economic development — and tourism is not the only sector selected. Port-of-Spain also contributes with a report on the forestry industry within the post's territory. There is a lot happening there.

With Christmas and the New Year approaching, together with all the holidays and disruptions that this season brings to the smooth flow of work, it has been decided to combine the November and December issues of *Canada Commerce*. This means that the next issue will be in January 1975. And with this note, the staff of *Canada Commerce* wishes all our readers a prosperous New Year to come.

Articles

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A general view of Cape Town harbour, with Table Mountain in the background.

South Africa wants more imports

W. D. WALLACE, Trade Commissioner, Cape Town

The year 1973 was one of doubt and hesitancy in the South African economy. A high rate of inflation (about 10 per cent), shortages of skilled labour and some raw materials, and a low capital inflow were adverse factors. They were, however, offset by a remarkable improvement in the country's balance of payments position, reflecting the increased price for gold, and a substantial upward revival in the private manufacturing sector. Real growth was about 5.5 per cent as against 3.5 per cent in 1972 but close to the growth rate of 5.75 per cent under the Economic Development Program. It now appears that manufacturing and, to an increasing extent, private consumption expenditure are taking over as growth generators. For the past year or so exports have made the major contribution to growth, assisted by public sector investment.

The international oil crisis, which brought about a total embargo on Arab oil supplies to South Africa, will of course have adverse effects on industrial production, particularly in the petrochemical industries, although oil accounts for only 21 per cent of the country's total energy requirements. While the crisis may have unfortunate indirect effects, particularly on the country's still rather fragile business mood, the renewed upsurge in the free market price of gold could cushion some of these effects.

Inflationary pressures — Continuing strong demand for South Africa's main export commodities, a good agricultural crop and sustained high gold prices auger well for the economy's prospects for 1974. However, increasing rates of inflation both domestically and abroad are beginning to produce unsatisfactory side-effects. Demand pressures are emerging in some sectors. Service costs are increasing rapidly as are pressures on housing and labour. These, coupled with higher costs for oil and generally low stocks of inventories, are aggravating the situation. Increased prices will be passed on to the consumer.

Balance of payments — The balance of payments showed a marked improvement during the past three fiscal years and changed from a deficit of R1,100 million in 1970-71 to a deficit of over R400 million in 1971-72 to a surplus of R270 million in 1972-73. (One rand equals approximately $1.45.) In 1973 a deficit of R15 million was recorded. The country's gold and foreign exchange reserves improved from R937 million as of December 31, 1972, to a high of R1430 at the end of July 1973 and were attributed to increased merchandise exports and net gold output. This was followed by a substantial decline and at the close of 1973 the reserves amounted to R814 million.

The change in the balance of payments and the gold and foreign reserve positions reflected the continued large deficit on South Africa's merchandise trade and the payments for higher imports as well as a decline in the net inflow of capital. Other factors included a substantial outflow of capital for the repayment of foreign loans, a change from financing foreign trade from overseas sources to local financing, and more favourable conditions from raising capital in the domestic market.

Import control restrictions relaxed — As a result of higher prices for gold, an improvement in the balance of payments, and a recovery in the value of the rand South Africa was able to take steps to relax its import control restrictions. Since October 1972 the Government has added numerous items to the list of goods for which no import permits are required and reduced the list of goods subject to import quotas as well as the list of goods for which permits are readily issued. Nevertheless, the Government continues to follow its policy of providing tariff protection to local manufacturers who can justify the need.

Foreign trade — South Africa's balance of trade position deteriorated in the latter part of 1973 as a result of a small decline in exports, mainly agricultural products, and a sharp increase in imports reflecting high import prices and an increased demand for goods and services. The country ended 1973 with a trade deficit, excluding gold bullion, of R890.5 million. Imports were placed at R3,301.1 million and exports at R2,410.6 million. The import figures were adjusted to omit the amount of mineral product imports — basically oil and derivatives — so the full total is much higher, close to R1,110 million.

South Africa's exports have increased to all geographical areas, as have imports from all areas except Asia.

Britain, the United States, West Germany and Italy are the country's main sources of supply. (Canada accounts for slightly over one per cent of the value of South Africa's imports.) Substantial increases were shown for imports of machinery and electrical equipment, base metals, end products, textiles and products, chemicals and allied products, and paper and paper products.

Canada-South Africa trade — Canadian-South African trade has undergone some wide fluctuations during the past few years but is beginning to show a more stabilized pattern. Nevertheless, from a traditional surplus, Canada had an unfavourable balance of $16 million in 1972 and approximately $26.8 million in 1973. Exports from Canada, after rising to a record level of $104 million in 1970, declined to $63.6 million in 1971 to $42.9 million in 1972 and recovered to $60 million in 1973. In the first six months of 1974 Canadian exports to South Africa were worth $34.3 million compared with $26.1 million during the same period in 1973. On the other hand, imports from South Africa have increased steadily from $45.7 million in 1970 to $54.5 million in 1971 to $58.9 million in 1972 to $86.8 million in 1973. In the first six months of 1974 Canadian imports from South Africa were worth $54.4 million compared with just over $25 million during the same period in 1973.

The decline in Canadian shipments can be attributed to the loss of the market for aluminum ingots when production came on stream in South Africa in 1971, and to the drop in imports of automobiles when Canada stopped producing right-hand-drive cars. Declines in shipments of lumber and newsprint paper were attributed to local production and stringent import control restrictions. Shipments of wheat other than durum recorded declines as South African crops were more than sufficient to meet domestic demand. On the other hand, Canada's exports of manufactured and semi-manufactured products continued to hold their position, and in many instances recorded gains.

Imports of raw sugar from South Africa which have been increasing in each successive year were the chief factor in contributing to this country's sales to Canada. They increased from $23.7 million in 1971 to $35.2 million in 1972 and to over $60 million in 1973.

Imports of raw sugar from South Africa during the first six months of 1974 were worth $36.6 million. Imports of ferro-chrome, manganese ores, citrus and deciduous fruits, wines and brandy, and wood showed smaller gains.

Development plans — A large part of the growth of the economy and, in particular, of heavy industry stems from the Government's role through its own agencies such as the Industrial Development Corporation, which gives assistance to industry; and the Electricity Supply Commission, which is continuing to expand existing power plants and transmission lines and is about to build a nuclear power plant near Cape Town. The South African Iron and Steel Corporation is expanding some of its steel mills and has started construction of the Saldanha Bay-Sishen iron ore project involving the building of a bulk loading terminal and harbour, and a railway line from Saldanha Bay to Sishen. The South African Coal and Oil Corporation has announced a large expansion of its coal gasification plant and the South African Railways and Harbours is enlarging harbour facilities, railway lines and service depots. These projects, together with other public and private sector expansion plans, will mean a continuing demand for construction equipment, electrical and electronic equipment, railway equipment, forestry equipment, chemicals, hospital and medical equipment, and educational equipment.

South Africa, with a population close to 22 million, is the most highly industrialized country on the continent and a most important one from a trading point of view. While agriculture and mining are important sections of the economy, industrial expansion and improved living standards are having their impact and creating a greater demand for imported goods.

Canadian exporters interested in this market should use the facilities of the Department of Industry, Trade and Commerce, particularly its Office of Export Programs and Services. Furthermore, the resources of the Canadian Trade Commissioners in Johannesburg and Cape Town are available to assist the exporters in developing this market. □

Fermentation vessels in a chemical plant in Germiston which uses sugar cane molasses.

Mechanization comes to South African forests

W. H. SMITH, Commercial Officer, Johannesburg

A manually operated mechanical log sorting line in the eastern Transvaal. (Photo: W.G. Winckler, S.A. Lumber Millers Assn.)

The forest industry in South Africa and neighbouring Swaziland is a young, rather undeveloped, but growing sector of the region's economy. There are no natural forests available for exploitation, and the industry is based on some two and a half million acres of timber plantations varying from hard wattles (accacia) through gums (eucalyptus) to conifers (pinus). Ownership of these plantations is fairly evenly divided between government forestry departments, a few large corporations, and many smaller private growers.

With the expanding demand for wood and wood fibre, both public and private investment is being accelerated, and official policy calls for doubling the area under silviculture by the end of the present century. But experts predict that even this will not prove adequate to meet demand: South Africa, therefore, should offer a market for imported lumber, pulp and paper for some time.

One problem facing the industry is the shortage of land suitable for afforestation. Only 20 per cent of South Africa's land area receives the minimum of 750 mm (29.5 inches) of rain per year considered necessary for forest growth, and this available land is further restricted by competition from agriculture and rather tight land-use regulations imposed by water conservation authorities. Under these regulations the planting of exotic trees — and all the plantations are exotics — is prohibited within 10 metres of a water source, be it spring, river or reservoir.

Consumption — The consumption pattern for locally grown timber is, in percentages, pulpwood 36, mining timbers 24, structural sawlogs 23, industrial sawlogs 13 and poles 4. Given the limited number of pulp mills, there is a buyer's market for pulpwood, and prices are low by North American standards, ranging from approximately $10 per ton for newsprint grade, to $12-15 per ton for other grades. Transportation from the plantation to the pulpmill is often expensive, and pulpmillers have generally benefitted from a cheap supply of wattle logs which are a by-product of the tanning industry.

In an effort to develop the market for logs, timber growers recently formed a co-operative that has negotiated the sale of $3.75 million of wattle chips to Japan over the next 10 years, and have set up a chipping plant (using $600,000 of Canadian materials-handling equipment). Although not yet in operation, this project has already led to an improvement in chip prices.

Pulp and paper — Most South African timber, both softwood and hardwood, is consumed by the pulp and paper industries. The main paper manufacturers are South African Pulp and Paper Industries (SAPPI), a wholly South African company; Mondi, owned partly by South African interests and partly by Bowaters; and several smaller companies such as Premier Paper Mills (working entirely from waste paper), and the Ngoya Paper Group, an associate of the massive Hulett Sugar Interests (producing from its own semichemical pulp and from waste paper). SAPPI is by far the largest paper manufacturer

in South Africa, with a turnover of nearly $126 million in 1973. The company owns about 136,000 acres of forests and in 1973 harvested from its own and other plantations approximately 76,000 tons of pulpwood, mining timber and sawlogs.

South Africa is 90 per cent self-sufficient in newsprint and mechanical printing papers, with a production of about 200,000 metric tons a year. There is additional plant capacity available at the SAPPI and Mondi factories. About 116,000 metric tons of printing and writing papers and 320,000 metric tons of kraft and packaging papers are also produced.

Canada is an important supplier of pulp and paper to supplement the country's domestic production. Last year, Canadian exports to South Africa included $3 million of woodpulp (kraft, sulphate, sulphite and mechanical), $1.2 million newsprint, and $2.1 million other paper (writing and reproduction, fine, printing, wrapping and converting paper).

Mining timbers — "Mine packs" are a unique South African usage of timber. The country's many gold mines use underground supports in the form of mats consisting of a series of poles sawn on two sides, stitched together with wire, and placed in piles with the poles running in alternate directions. This "pack" is wedged against the mine roof to provide a support pillar.

Mills for production of mine packs comprise a simple manual sorting operation, where the logs are sorted by diameter. A conveyer then leads to a slasher which cuts the logs to 4 ft., 4 ft. 6 ins. and 5 ft. lengths. They are then fed to a saw table with two circular saws preset to the diameter of the logs being cut. Sufficient material is cut off two opposite sides of the logs to provide flat surfaces. The poles are then bored with an auger drill — thousands of these are used and this may be an opportunity for Canadian exporters. A number of logs suitable to make the required width are then placed together, and a heavy wire is threaded through and stapled to the outside of the logs. The waste slabs may be chipped if there is a pulpmill close enough to take them without prohibitive transport costs, or sold for fencing posts. But usually they are used for firewood or burnt in the mill's boilers.

One South African company has a modern mine pack plant using a modified Can-Car Chipper Canter instead of circular saws. The production at this mill greatly exceeds that of the standard mills.

Lumber — Most lumber produced in South Africa is softwood, the most popular varieties being *pinus patula* and *pinus elliottii*. Although South African species are generally of poor quality compared with the slower-growing northern hemisphere varieties, some of the better quality *elliottii* trees are yielding a good, sound, dense board.

Both these pines are used for structural timber, which is graded according to the South African Bureau of Standards' specifications, and for industrial lumber which is made into containers, etc.

The knotty nature of some South African softwood trees can be an asset. Providing the knots are tight enough to meet S.A.B.S. grading, the board is sold as "knotty pine" which, when varnished, provides a very decorative interior finishing material. Some hardwood eucalyptus is also sawn but has a tendency to split easily and is not popular. Most building hardwoods are imported: a variety called Meranti, from Malaysia, being the most commonly used.

Mills are small — By North American standards mills are small, inefficient and labour intensive. The standard mill consists of a manually-sorted log pile with conveyers leading to a gang saw (usually of Swedish or German manufacture); and one or more board edgers and resaws. One or two mills have a circular breakdown for dealing with larger logs although the average saw log is probably not more than 20-24 inches in diameter.

Sawmillers in South Africa are faced with a number of problems. First, there is the generally poor quality of sawlogs, and a rate of recovery which has been estimated at as low as 40 per cent of the tree. Very little attempt has so far been made to use chips and waste for manufacture of chipboard or pulp, because of the generally small output per mill and the costs of transportation. Wastage in local sawmills is high, with the log edges, board edges and sawdust being burnt, sometimes for fuel but usually in a beehive burner.

Transport over longer distances is the prerogative of South African Railways, and rail rates depend on whether the timber is in the form of roundwood, rough-sawn or planed. The freight cost for planed lumber is much higher than for rough-sawn and round logs, so that processing has tended to migrate to the cities, and the sawmiller usually sells his product as rough-sawn.

Gang saws popular — Most sawmills depend on the machinery manufacturers for their expertise, and attempts by Canadian consultants to offer their professional services to this market have so far been unsuccessful. Some of the major groups such as Acme Timbers, an Anglo-American Mining Corporation subsidiary, have built up a considerable amount of experience in sawing South African timber, and maintain constant contact with Germany and Scandinavia and, to a lesser extent, with North America in order to keep up to date with developments.

One of these bigger companies, Silvagrik, has installed a modern band saw mill, but the gang saw is still the most popular machine. Although sawmillers have traditionally looked to Europe for their equipment, at least one Canadian manufacturer has recently gained a foothold in this market by the delivery of a V-head Chip-n-Saw which is apparently living up to expectations. The industry is watching this installation closely and it could lead to further sales of Canadian sawmill equipment.

The South African Lumber Millers' Association is a powerful group whose membership includes most of the sawmillers in the country, and has done much to improve the returns to the industry. South African lumber millers have long suffered from comparison of their products with imported lumber and the association has recently established a marketing bureau to improve marketing and stabilize prices. It has also launched a program to popularize timber frame housing. This is making slow progress owing to the traditional preference for bricks and mortar.

Our office is supporting this program which should, in time, lead to a bigger market for quality Canadian lumber and plywood. Although South Africa is 92 per cent self-sufficient in lumber, Canadian exports to this market in 1973 were worth about $2.7 million, chiefly hemlock and Douglas fir. Our shipments of plywood in the same year amounted to about $250,000.

Mechanization — A few years ago the traditional axe and two-man bow saw was the sole method of felling trees, which were then skidded to the roadside

by mules and man-handled onto trailers drawn by farm tractors which transported them to the mills. Today the industry is still labour-intensive, but mechanization is coming and the chain saw is now universally used. Although Canadian saws appeared early on the South African scene, they fell out of favour because of poor marketing by local agents. A recent come-back has been made by a Canadian firm which appointed good agents and organized training and advertising programs. But there is a lack of suitable uncommitted agents willing to spend time and money on marketing.

The reasons for the slow start of mechanization in the forest are not hard to find. Apart from the large state-owned plantations and those owned by major corporations, such as SAPPI or South African Forest Industries (a subsidiary of Anglo-American Corporation), most of the plantations are owned in fairly small lots. Many producers continue to use farm tractors as skidders, partly because locally assembled tractors are relatively cheap and partly because of the fairly easy nature of the terrain over which the logs are skidded.

Even government forestry departments with their large plantations have been slow to mechanize. However, more and more interest is now being shown in specialized equipment. Two Canadian companies, Timberjack and Clark Ranger, have begun to build up a market for their rugged machines, and we estimate sales of 20 to 25 units over the next two years. For use in gentler terrain, forwarders, with BM Volvo the leaders in the field, are becoming more popular.

Transport along forest roads is being provided by a variety of truck and trailer combinations, the truck often being fitted with a hydraulic hoist of the Hiab or Atlas type. No mechanical harvesters are being used, though one or two companies plan to introduce tree shears and delimbers.

Opportunities — The long-standing cliché that South Africa has a plentiful supply of cheap labour is being increasingly questioned in all industries, including the forest industry. South African workers, like those in other countries, are becoming less and less prepared to do hazardous work in isolated forest areas. Wages paid to labourers, even though augmented by rations and quarters, are still low by Canadian standards but are beginning to climb. Productivity is extremely low and is not improving very quickly, so that labour costs are rising. It is therefore becoming apparent that investment in modern forest machinery will be essential to keep the industry economically viable. There is no doubt that the next few years will see a rapid increase in forest mechanization and Canadian manufacturers can share in this market opportunity.

The sawmilling industry is also facing the labour cost pinch and will have to modernize. Scandinavian and German equipment has dominated this market area in the past, but there is no reason why Canadian firms should not obtain a fair share. Although much is made of the alleged unique local conditions in South Africa, forest machinery and sawmill equipment as used in those parts of British Columbia or eastern Canada having small diameter timber would be suitable for use in South Africa.

For all Canadian machinery exporters our office is ready to recommend suitable agents or marketing programs. We continue to publicize Canadian expertise in the forest and sawmill industry by visits to sawmills, plantation owners, agents and associations, and by film showings and participation in trade shows. We would welcome more export offers from the Canadian manufacturers who could benefit from participation in this growing market. □

A Timberjack grapple skidder and double drum skidder.
(Photo: Eaton Kent S.A. (Pty) Ltd.)

a market for electronics equipment

F. VEENEMA, Assistant Trade Commissioner, Johannesburg

South Africa imported about $220 million worth of sophisticated electronics equipment last year. The Canadian share of this was worth about $4 million. These figures indicate that Canadians are missing out on a good market. Admittedly, it is a long way away, but it is a market worth investigating as the opportunities are increasing, particularly in the following areas.

Telecommunications — The statistics for this particular field are deceiving. The South African Department of Posts and Telegraphs awards 10-year supply contracts for most of its requirements to local subsidiaries of major international firms: Siemens, GEC, ITT, Plessey. These subsidiaries partially manufacture telephone and telegraph equipment using many parts imported from foreign sister companies. Several newcomer international firms are already negotiating for participation in the third set of contracts starting in 1978.

The Department of Posts and Telegraphs has plans for two earth stations for Intelsat IV satellite communications. Cable and Wireless Limited of London was awarded the contract for the first station, which is to be commissioned by December 1975. The second station is planned for 1976.

Other state corporations, ESCOM (the national electricity generating and distribution utility) and SAR (South African Railways, Harbours and Pipelines), are free to award telecommunications contracts to any tenderer, regardless of nationality. Nevertheless, all government corporations give formal or informal preference to equipment with local content.

ESCOM's national transmission grid is almost complete; but its present system of communication, pilot cables and power line carrier, is being replaced by microwave systems.

The SAR has been replacing its overhead lines system of communications with coaxial cables and has just ordered a $5.2 million radio communications system for coal trains on a new 500 mile line. If this radio system is successful, it may be used more extensively by the railways in the future. The South African Railways is also beginning a series of automatic telephone exchange replacements and expansions in its private system. In co-operation with South African Airways, the SAR began developing a computerized message-switching network last year.

Part of the electronics plant of South African Philips (Pty) Limited in Cape Town.

All these utilities are expanding rapidly, and big contracts for telecommunications equipment can be expected in the next four years.

Process control and supervisory systems — South African industry in general is booming and several major projects are in the planning stage. ESCOM is increasing thermal electricity generating capacity. It has almost completed the Hendrina and Kriel stations and is installing a sixth generator set at Grootvlei. Planning for "Project YY", a new thermal station containing six generating sets of 600 megawatts each, is being speeded-up because of the energy crisis. ESCOM has also issued to nine organizations a preliminary request for quotations concerning a BWR or PWR 1,000 megawatt nuclear reactor worth between $5.6 million and $7 million. The contract will be awarded in 1975, and construction will begin in 1976. A second nuclear station is planned for comissioning a few years after the first station starts up.

The huge government-owned iron and steel corporation (ISCOR) is in the middle of a major steel-making expansion phase. The announcement of work on a major oil refining and petrochemical complex on the Natal coast at Richards Bay is expected soon.

A major expansion of pulp and paper capacity by South Africa's two major companies, SAPPI and Mondi, is also probable. A $22 million expansion to the country's tissue-making capacity has just been announced by the local subsidiaries of Kimberley-Clark and the Scott Paper Company.

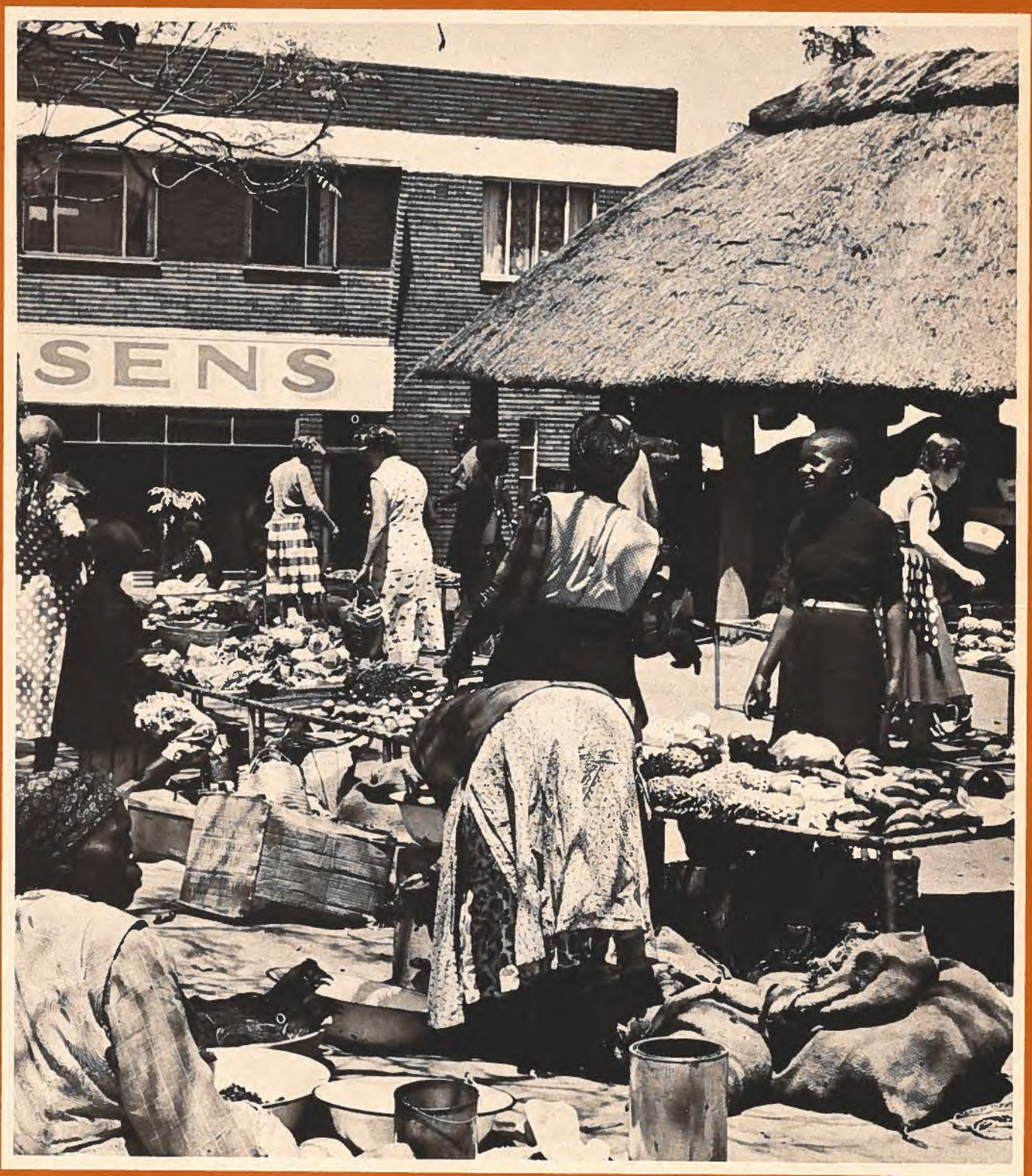
Consumer electronics — Most of this market is being supplied by firms manufacturing locally under licence to the international electronics giants.

Television services will be introduced in January 1976. Five local firms have been appointed as exclusive manufacturers, all of them under licence to foreign firms. Although sets will be imported initially for local assembly, the percentage of local manufacture and imports of components rather than subassemblies is expected to increase. There will also be opportunities for ancillary TV equipment and CATV system manufacturers.

Computers — South African firms, faced with a great shortage of skilled labour, are rapidly becoming more conscious of the advantages of computers. In addition to the large digital computers, there are approximately 200 mini-computers installed in South Africa. The market for terminals is increasing and will be even more promising as telephone services improve.

Components and instruments — Production of electronic components and instruments is still in the developing stage in South Africa. Foreign firms are competing in an expanding market. Government research organizations, the Council for Scientific and Industrial Research and the National Institute for Telecommunications Research, are very active and constitute a limited market for a surprising variety of sophisticated instrumentation.

Because of the distance between South Africa and Canada, and the preference for dealing with local firms, the best way to do business in South Africa is in co-operation with a local agent. But Canadian firms wanting to sell sophisticated electronic equipment such as processing control and supervisory systems may have difficulty finding a local agent with sufficient technical expertise who is not committed to another foreign supplier. If this is the case, send your own experts to South Africa, for several months if necessary, to introduce the equipment to the local company and assist its marketing efforts. The results could well be worthwhile. □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Swaziland:
markets in the making

G. A. McGREGOR, Assistant Trade Commissioner, Johannesburg

The Kingdom of Swaziland, entirely surrounded by South Africa and Mozambique, is about one third the size of Nova Scotia, with a population of about 500,000. It is now five years since King Sobhuza II led his people from the status of British Protectorate to that of complete independence, and during this period the tiny nation has made substantial economic progress. Continuing developments in the country's agriculture, mining, forestry, tourism, transportation, manufacturing and communications industries offer investment and export opportunities for Canadian firms.

The proximity of South Africa has brought a number of benefits to the Swazi economy. The country's capital, Mbabane, has become a major attraction for South African tourists, and South African investment has played an important role in developing the country's resources. Swaziland is a member of the South African currency and customs union, so that products of the Kingdom's industries can be freely exported to the rich South African market and Swaziland receives a share of South Africa's customs revenue. In addition, manufactured products and technical skills from South Africa are readily available. The South African rand will continue to be legal tender in Swaziland, but the Swazis are introducing their own currency unit, the emalangeni, later this year. It will be at par with the rand.

In other ways, too, Swaziland is fortunate compared with many developing countries. The land is varied and beautiful and generally fertile, water is comparatively plentiful, and there are mineral, forest and agricultural resources. The country also has the advantage of a population that is homogeneous in terms of language and culture. The 1966 census showed that of approximately 375,000 inhabitants 94 per cent were Swazis. The current population approaches 500,000 but the relative proportions of African and European residents have remained about the same. The numerical importance of the European element can be expected to decline in future.

The common traditions of the Swazi people plus the nation's compactness makes it easier for the Government to carry out a national development plan such as that under way for the period 1973-1977. Furthermore, the fact that the population is expected to double within 23 years makes rapid development essential. In its development programs, the country receives aid from the World Bank and from a number of bilateral donors, including Britain, the United States and Canada.

The national development plan — While government intervention in the economy is presupposed by the very idea of a national development plan, the tone of the proposals indicates that the eventual goal is the raising of a subsistence economy to a level and style similar to the more advanced nations through strengthening the private sector.

The present plan is guided by two broad purposes: to encourage the participation of the Swazi people in the development of their country, and to increase the degree of independent control over the national economy. At present, the economy of Swaziland is dominated by foreign interests and the contribution of the Swazi sector to GDP is less than one third. As one would expect, the distribution of income reflects the lack of participation of Swazi capital and personnel in the more modern sectors of the economy.

Under the plan, in order to achieve a 5 per cent per annum growth rate in GDP, Swaziland plans to transform the traditional agricultural sector from a subsistence level to a cash economy; increase employment through rural development and through an expanded wage economy; provide appropriate education and training programs for both adults and children, with emphasis on the rural areas; train sufficient manpower to manage an expanding and modernizing economy; develop the institutions necessary for guidance and control of the economy; provide better housing and health conditions; promote balanced and equitable development throughout the different regions of the country, and to continue diversification of external economic relations, both in trade and aid.

Agriculture — Continued expansion of the agricultural sector is critical for a country where more than 70 per cent of the population derives its livelihood from the land. Improvement of agriculture will involve the simultaneous development of most aspects of rural life. Rationalization of land tenure, resettlement of populations, strengthening of extension services and the creation of suitable marketing organizations must be carried out rapidly and on a large scale if the nature of Swazi agriculture is to be changed.

The character of farming in Swaziland is still marked by a profound division between the traditional and the cash crop sectors. The major cash crops are produced on foreign-controlled estates and on large freehold farms. Sugar is the most important, followed by citrus fruit and pineapple. All of these crops are major earners of foreign exchange: sugar is normally sold to Britain, the U.S., Canada and Zambia, and the fruit exports go mainly to Western Europe. Unfortunately, the uncertain nature of commodity prices tends to make the annual earnings from these commodities rather varied. On the plus side, the associated processing industries have given a much needed boost to local industrial development

Within the traditional sector, maize, sorghum, peanuts, cotton and tobacco are grown mainly on small farms. Some

of this production is only now being drawn into a cash economy. Cotton, tea, avocados and mixed vegetables are thought to have potential for further development in Swaziland. The other component of traditional agriculture which has development potential is the raising of livestock. Together with the production of cotton and mixed vegetables and livestock industry has scope for integration with processing facilities within Swaziland.

Forestry — The forest industry in Swaziland accounts for 25 per cent of the country's exports, and the forestry section will be one of the major recipients of financial resources under the development plan. The plan envisages a new mechanical pulpmill or the expansion of the existing mill by the private sector. Most afforestation is expected to be undertaken by private companies. Government intervention will be restricted to ensuring that efficient land use practices are followed and perhaps to encourage joint ventures in the operation of state forests. Much of Swaziland is mountainous, and there is no doubt that Canadian forest machinery has a good future in this country.

Five companies are at present active in the forest industry, one company cutting only for pulp production and the other four operating lumber mills. The pulp mill, Usutu Pulp (Proprietary) Limited, is a subsidiary of Courtaulds of Britain and has extensive plantations of *pinus patula* and *pinus elliottii* in the southern part of Swaziland and adjoining areas of the southeast Transvaal. Usutu Pulp, which originated as a venture of the Commonwealth Development Corporation, is a highly mechanized company using Timberjack and Ranger skidders, Knuckleboom loaders and Pacific Truck and Trailer combinations in their 225,000-acre holdings. The company has recently been enquiring about portable housing from Canada to accommodate its forest labour force.

The mill, which began production in 1961, is large and produces an estimated $25 million worth of pulp a year which is exported to South Africa and Japan. It operates on a perpetual basis and, as an area is felled, the ground is prepared and replanted with seedlings grown in the company's nurseries. Apart from white technical staff, all operations and most of the clerical work are carried out by Swazis, and the company operates a continuous training program and a literacy training scheme.

Northwest Swaziland is given over largely to pine plantations for the lumber industry and three companies — Swaziland Forest, Dukuduku Timbers and Peak Timbers — work this area. Of these three, Peak Timbers, which has recently been bought by Acme Timbers of South Africa, is by far the largest, and uses modern Timberjack skidders. All three mills produce structural and industrial timber using Swedish and German machinery.

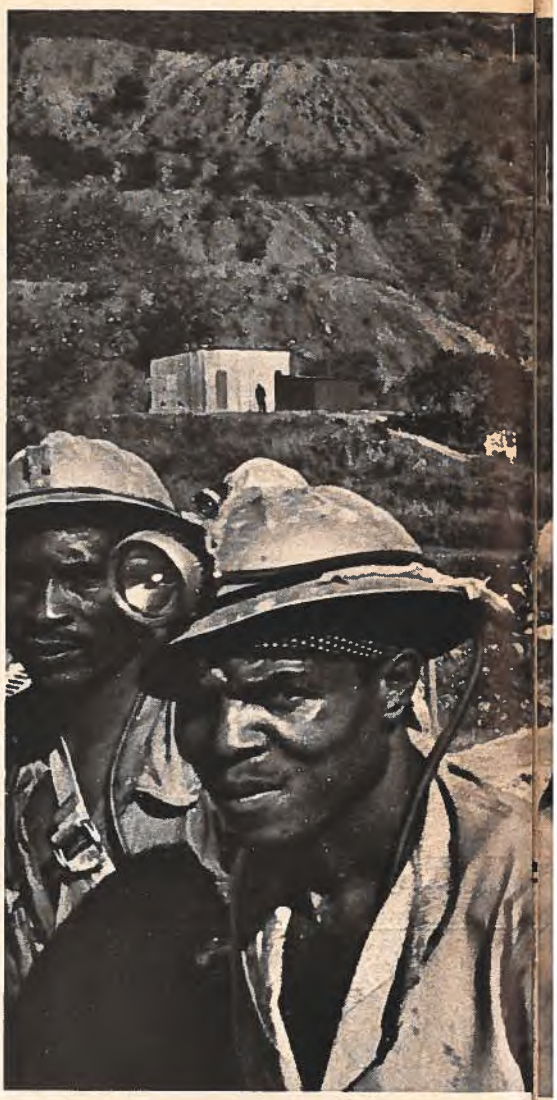
The major problem is lack of transport. Roads in northern Swaziland are gravel and usually in fairly rough condition. The distance to the railheads adds considerably to the cost of marketing the lumber, and there is no economic use for the waste products, which run as high as 60 per cent of the tree. The principal market is the Witwatersrand in South Africa.

Managers of these companies have shown in discussion with us that they are well aware of the need for modernization and mechanization, but they must also accept a responsibility to provide employment for Swazis. We are in constant touch with mill managers to keep them aware of Canadian machinery and expertise which can improve labour productivity.

Mining — Large-scale mining in Swaziland dates from as recently as 1939 and now accounts for a third of the country's exports. The first development was an asbestos mine at Havelock, which is now producing 35,000 tons a year of chrysotile asbestos for export to Britain and South Africa. The mine is probably unique in that its output is exported by aerial ropeway, since the nearest railhead is just over the border, in South Africa. This mine has an estimated reserve of nine years.

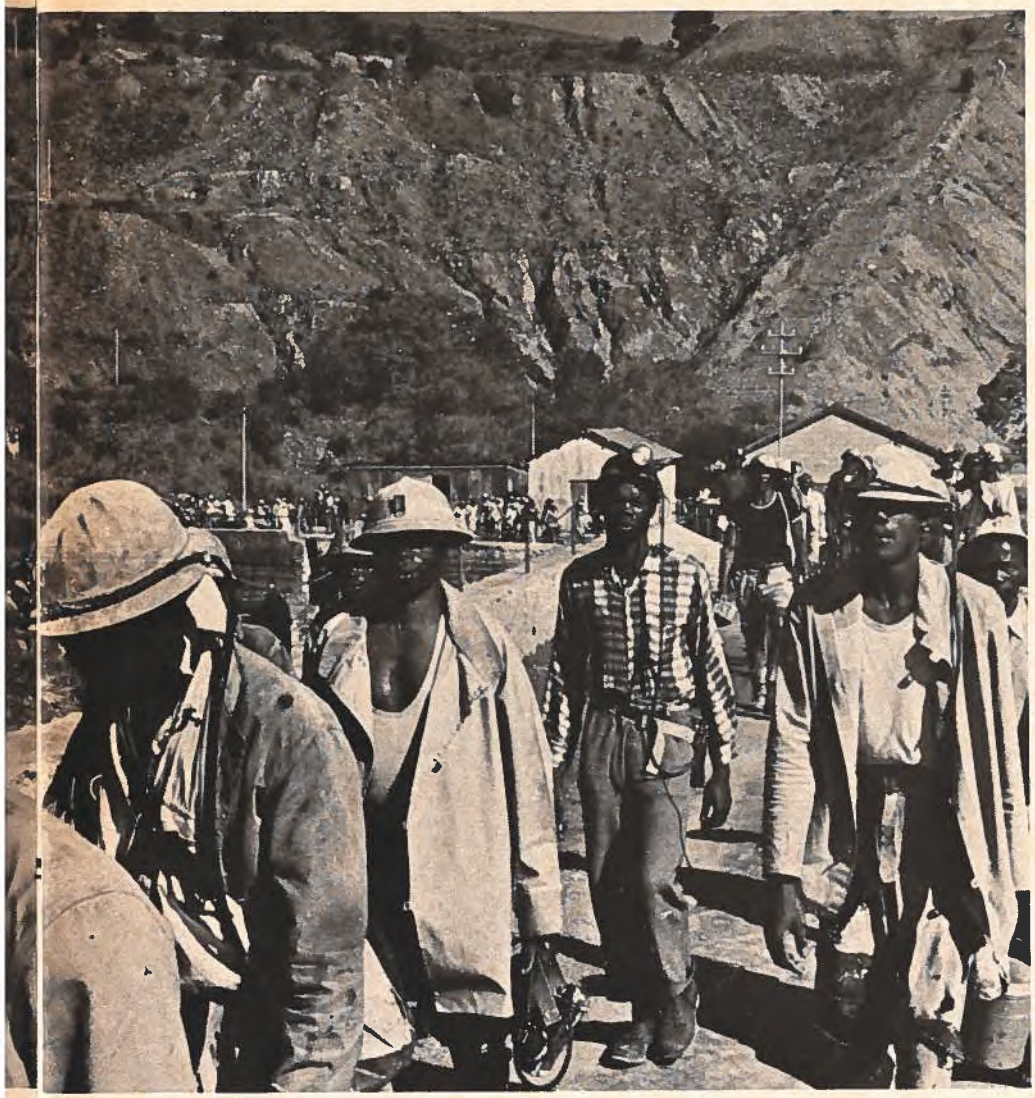
Iron ore is a second important mineral resource, with exports moving by rail to Lourenco Marques for export to Japan. But the high grade iron ore deposits being mined by Anglo American Corporation are expected to run out by about 1980. Further extensive deposits of lower grade iron ore are believed to exist, but there are no plans for their exploration, which could require a pelletizing plant. Other minerals produced include coal (150,000 tons a year), barytes, pyrophillite and kaolin.

The current Plan foresees more Swazi participation in the expansion of existing mining enterprises as well as increased prospecting activity. Gold and tin were once mined in Swaziland, and



recent work has indicated the possible existence of diamonds. There is also the prospect of other deposits of minerals such as nickel and copper.

Coal and power — Most of Swaziland's power consumption of about 50Mw is produced by burning imported oil or waste products such as bagasse and wood chips. Smaller amounts are derived from hydroelectric stations, and by imports from the South African grid. Construction of other hydroelectric plants does not appear economically feasible, and plans have been under way for some time to construct a large thermal power plant using the extensive local



One of the first mines in Swaziland was this one at Havelock, now producing 35,000 tons of asbestos a year for export.

deposits of coal. Approaches have been made to the World Bank and various aid donor countries, to South Africa's Electricity Supply Commission which would buy the surplus power, and to Anglo Corporation which owns the coalfield mineral rights. Originally a 1,500 Mw plant had been envisaged, but recently the planners have favoured a smaller plant in a phased development leading to the eventual establishment of a 600 Mw station.

In view of the current world fuel shortage, the most exciting prospect for Swaziland's mining industry are the large coal deposits in the east and south of the country. An Anglo American subsidiary has already assessed reserves of 164 million tons, and another coalfield has about 10 million tons available for open pit mining. Another deposit of 180 million tons is also being investigated.

The deposits include bituminous, anthracite and metallurgical coals, and the quantities are ample for fuelling a thermal electric plant and for building up exports to Europe and Japan. Within a few years, therefore, Swaziland may be earning foreign exchange from exports of both power and coal. A new rail link may be constructed northwards to the large new harbour being built at Richards Bay in South Africa, and this would supplement the existing line to the port of Lourenco Marques in Mozambique.

Industrial development — Industrial capacity in Swaziland is still limited. The manufacturing sector's share of GDP amounts to only 16 per cent, most of it from the activities of the two large mills producing refined sugar and wood pulp. Given the small domestic market, all major industries must be export-oriented. (Swaziland benefits from duty-free entry to the rich South African market.)

Opportunities are seen for more investment in the processing of sugar, timber, semi-tropical fruits, cattle, tobacco, tea and vegetables. Industries already present or developing include clothing factories, a fertilizer plant, a foundry, two large sugar mills, a cement plant, lumber and pulp mills, and a pineapple cannery. On the drawing board are plans for a third $45 million sugar mill, an $8 million cotton fabrics factory at Nhlangana and a plant to manufacture electronic components and consumer goods. Capital for these projects is expected from Europe, Taiwan and Japan.

The National Industrial Development Corporation of Swaziland (NIDCS) was set up in 1971 to promote private investment in industrial companies as well as in agricultural and mining enterprises. NIDCS operates a number of industrial estates, the largest being at Matsapa, offering fully serviced sites with access to road and rail facilities. Through NIDCS, investors can lease factories designed to the investor's specifications and receive assistance in raising loans. The Corporation may also take a minority interest in an enterprise with the agreement of the investor. In certain cases, NIDCS will conduct a pre-investment feasibility study on the investor's behalf.

The training of an industrial labour force is the responsibility of the Swaziland Industrial Institute. Entrepreneurship amongst the Swazi people is to be developed through the Small Enterprise Promotion Office (SEPO) in conjunction with the Small Enterprise Development Company (SEDCO).

Between them, these organizations provide financial and technical assistance for small entrepreneurs. Business organization in Swaziland is similar to that in the Republic of South Africa.

Transportation and communication — The National Development Plan includes the upgrading of transportation and communication facilities. The extensive road network is to be further developed with expansion of feeder roads in areas with good economic potential. The Plan foresees little prospect of railway development except where new lines may be laid down for the movement of bulk commodities such as coal.

There are plans for further commercial air links with neighbouring countries and the establishment of a national air line, although there is only one airport, at Matsapa. Most traffic is channelled through Johannesburg, but there are also regular flights to Durban and Lourenco Marques. Matsapa airport may be expanded, but its location and the prevailing local weather conditions may necessitate a second airport, probably in the Lowveld. This could become an international airport with direct services, provided by a Swazi airline, to Botswana, Lesotho, Malawi and Zambia as well as to South Africa or even Europe. Canadian suppliers of aircraft and airport equipment should watch for these developments.

The Plan also recognizes the need to ensure that Swaziland's facilities for efficient telecommunications are adequate for the expected demand. The primary emphasis will be on installing exchanges for the lines between the two major cities of Mbabane and Manzini. Thereafter, the internal trunk network will be developed to channel all connections through this central area. The final phase will be automation and improvements to the remainder of the local networks. All told, about two million rand ($1.3 million) is to be spent on investment in telecommunications up to the end of the Plan period.

Tourism — In terms of creating employment and of earning foreign exchange, tourism has a great deal to offer a mountainous and beautiful country such as Swaziland. The number of tourists and the size and quality of facilities available to them is expected to show a steady increase over the Plan period. The Canadian International Development Agency has contributed to studies of the tourism potential. Tourism received a major impetus from the opening in 1966 of the Royal Swazi Hotel which featured the first Casino in Southern Africa. Holiday Inns soon followed with a hotel in Mbabane and 1975 may see more than R15 million invested in hotels and amusement facilities by American, South African and Japanese interests.

Swazi workmen load rock on to a truck during roadwork.

The Government is committed to encouraging the tourist industry while guaranteeing controlled development. There is official concern over the problems which can arise from undue concentration of the tourist trade in certain regions. A further consideration is the need to train a sufficient number of Swazi nationals to gain the maximum benefit from the industry's employment potential. The Government foresees the need for extensive staff training programs and, if necessary, the promotion of joint ventures to ensure the attainment of this goal.

Swaziland is a small market at the moment, but it is expanding and worth investigation. The Canadian Government Trade Commissioner in Johannesburg is in constant touch with developments there and would be happy to give Canadian businessmen advice and more information. All we want is a letter from you — or a visit, if you are in South Africa. □

Corporate Tax Measures: A Review

P.M. MANDERS, Economic Development Division, Department of Finance

For some time now Canadian business has had the benefit of the corporate tax measures which were first introduced to Parliament in the budget of May 8, 1972. A preliminary evaluation of the impact of the measures was contained in an interim report (available from Information Canada) which was tabled in the House of Commons on March 29, 1974. A final report is to be presented to Parliament around the end of this year.

The best way to gain a perspective on the corporate tax measures is to start at the beginning. In his budget speech of May 8, 1972, Finance Minister John N. Turner proposed certain economic incentives for firms engaged in manufacturing and processing in Canada. These incentives, which came to be known as the corporate tax measures, were designed to improve the competitive position of manufacturing and processing firms both at home and abroad. Effective January 1, 1973, the corporate tax rate on general Canadian manufacturing and processing income was reduced from 49 per cent to 40 per cent, and on small business manufacturing and processing income from 25 per cent to 20 per cent. Also, for manufacturing and processing machinery or equipment acquired between May 9, 1972, and December 31, 1974, a two-year capital cost write-off was provided in place of the general 20 per cent rate on the declining balance which would otherwise have been applicable.

Legislation to implement the reduced rate of corporate taxation was first introduced in the House of Commons in June, 1972. However, the bill received only first reading prior to the dissolution of Parliament in September of that year, and the corporate tax reductions could not be enacted at that time. Legislation was again introduced in the new Parliament in the spring of 1973. Bill C-192 was passed by the House of Commons on July 4, 1973, and received Royal Assent on July 27, 1973. An Order-in-Council was passed on August 29, 1973, giving effect to amendments to the Income Tax Regulations defining manufacturing and processing profits which would be eligible for the reduced rates of corporate income tax. In accord with established practice, the amended regulations outlining the accelerated capital cost allowance were authorized separately by Order-in-Council on July 31, 1973.

Raising competitive position — The corporate tax measures were introduced to improve the longer-term competitive position of manufacturing and processing firms in Canada. When the measures were proposed in May, 1972, the Canadian economy had experienced several quarters of reasonably strong growth, but was still operating at a level short of full capacity. Business investment had been sluggish in the preceding year, the unemployment rate remained high, and superimposed on this mixed performance of the economy as a whole was a longer-term outlook for the manufacturing sector which gave some cause for concern.

In the perspective of the previous decade, gains in the level of activity in the manufacturing sector appeared low, and there was some concern that Canada's manufacturing firms were increasingly operating at a competitive disadvantage with respect to manufacturing firms in a number of other countries.

These countries, in recognition of the importance of their manufacturing and processing industries, had already adopted a range of tax and other incentives to bolster this sector of their economies. France had modified its tax legislation several times in order to encourage capital equipment acquisitions, assist mergers and develop industry generally. Industry in the Federal Republic of Germany benefitted from fast write-offs designed to develop new products or manufacturing techniques. Other countries such as Australia, Brazil, Ireland and South Korea had also offered attractive tax and other incentives to encourage domestic production and export of manufactured goods and services.

DISC — In the United States, Congress had approved tax legislation in December, 1971, under which U.S. exporters could obtain more favourable tax treatment on export operations if they established what were called Domestic International Sales Corporations (DISCs). By means of DISC, a company could defer indefinitely U.S. corporate income tax on one-half the profits earned on exports of goods and services. This legislation permitted manufacturers to reduce prices or to increase expenditures on research and development or on plant and equipment in the United States.

At the same time, the United States had introduced two other measures designed to encourage domestic investment by industry: the Job Development Investment Credit, which provided a tax credit of up to 7 per cent on new investment in machinery, and modification of the depreciation system under which a taxpayer could assume that a depreciable asset had a 20 per cent shorter life than its usual guideline life. These advantages to U.S. manufacturers and processors were regarded with particular concern in Canada because of the close commercial ties between the two countries.

In introducing the tax measures,

Expected investment in Canada rather than abroad

Year	Investment ($'000)	New jobs	Employment (man-years)
1973	26,764	341	341
1974	45,542	1,407	1,748
1975	193,607	3,369	5,117
1976	95,650	1,710	6,827
1977	60,000	470	7,297
(not stated)	54,920	618	7,915
Total, 1972-75	265,913	5,117	7,206
Total, 1972-77	476,483	7,915	29,245

Finance Minister Turner proposed that a comprehensive review of the effect of the measures be undertaken. He indicated that an interim report would be tabled in Parliament by April 1, 1974, to provide a preliminary assessment of the impact of the measures. A final report would be submitted by the end of 1974.

In order to undertake the interim survey and assess the impact of the tax measures, an interdepartmental committee was formed of officials from the Departments of Consumer and Corporate Affairs, Finance, Industry, Trade and Commerce, Regional Economic Expansion and from Statistics Canada. The survey itself, which was, of course, conducted on a strictly confidential basis, consisted of a detailed questionnaire that was sent to more than 1,000 manufacturing and processing firms for their assessment of the impact of the measures and interviews with officers of 250 of these companies.

The questionnaire, which was designed by the interdepartmental committee, asked firms to assess the impact of the tax measures on their investment, employment, and sales plans, on their competitive position, and on their ability to exercise price restraint. Where appropriate, firms were asked to comment on their assessment of the impact of the measures. The interviews were used to verify the accuracy of the companies' responses to the questionnaire, and to provide a perspective on the nature of the relationship between the tax measures and the companies' responses. The services of Canadian Executive Service Overseas (CESO) were enlisted to conduct the interviews.

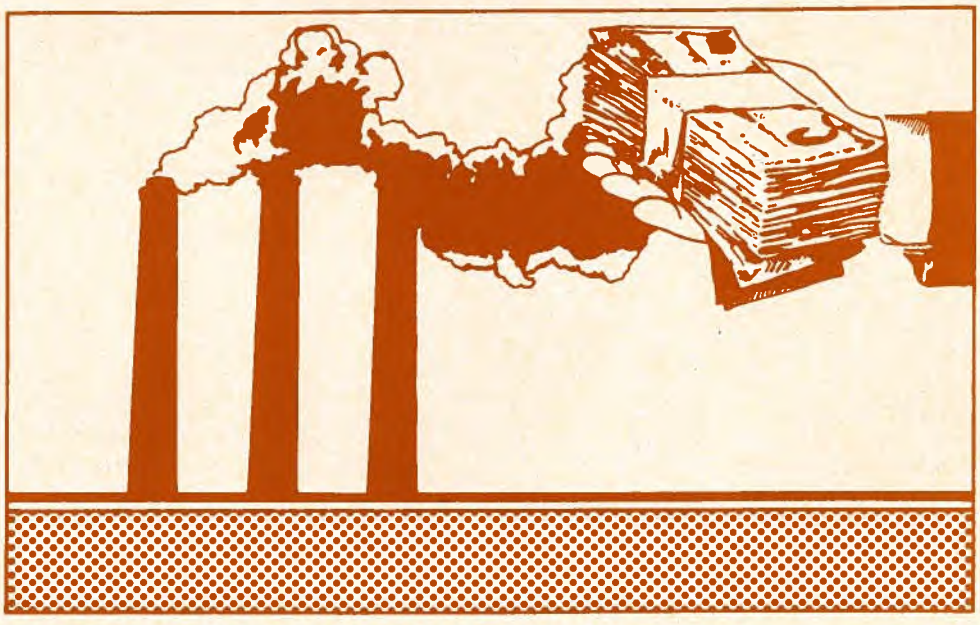
Significant advantages — Information obtained from the questionnaire responses and interviews was summarized in the interim report to Parliament, which indicated that the corporate tax measures would have wide-ranging effects. One important conclusion was that the measures would have a pervasive impact. Sixty-nine per cent of the respondents reported that the measures would have a significant effect in improving their competitive position. About 53 per cent considered the measures would have a significant impact in enabling their industry sector to exercise price restraint. In addition, the respondents expected significantly higher levels of economic activity as a result of the tax measures in the form of investment, employment, and sales over the period 1972-75.

Based on the survey results, it was estimated that more than 94,000 new jobs would be created in the manufacturing sector as a result of the measures over this period.

The response to the question about the extent to which companies expected the tax measures would result in investment in Canada rather than abroad was particularly interesting (see table). A total of 46 respondents expected to undertake an additional 67 projects in Canada rather than in foreign countries as a result of the tax measures. These projects would create close to 8,000 new jobs.

Work is still being done on the final tax measures survey, and the final report is expected to be tabled in Parliament around the end of 1974. Questionnaires were mailed out to more than 1,000 firms on July 9, and interviews were requested with 300 firms. The questionnaire being used is similar to that used for the first survey, although several improvements and additions have been made.

As with any major exercise of this kind, one learns by doing, and several improvements in the survey procedure for the final report have been incorporated as a result of experience obtained from the first survey. The survey itself is a unique exercise with joint government-industry co-operation in assessing the impact of the government fiscal policy. □



New era of development in Jamaica

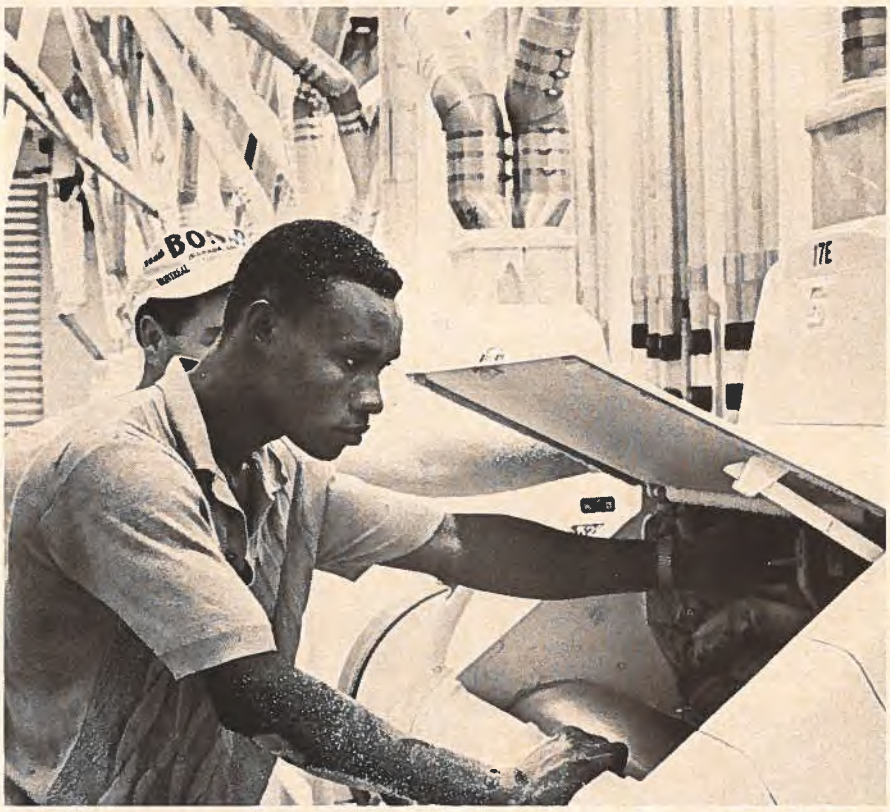
ANDRE E. LEPAGE, Commercial Secretary, Kingston

At first glance Jamaica would seem to have reason for rejoicing over its recent economic performance since the gross domestic product for 1973 is estimated to have increased by 19.7 per cent over 1972 at current prices. In real terms, however, the growth is only marginal because of major increases in the price of all imported commodities, particularly food and fuel, which are two vital necessities for Jamaica.

In fact, 1973 was a year of economic crisis for the Jamaican economy. It was subjected to problems of lagging domestic production in important sectors, of food and raw material shortages, of unprecedented escalation in retail prices, of sustained pressure for larger wage increases and of a serious deterioration in its balance of payments.

The balance of payments showed an over-all deficit in 1973 for the second consecutive year and amounted to $26.3 million (Jamaican dollars are used throughout this article, unless noted otherwise). The adjusted merchandise trade deficit increased by 33.2 per cent to $161.2 million from $121 million in 1972, while the deficit on the services account rose by 45 per cent to $85.4 million from $58.9 million. Together with net receipts of $23.5 million from unrequited transfers, the deficit on goods and services account resulted in a current deficit of $223 million in 1973 compared with $157.6 million in 1972.

As a result of worldwide inflation, consumers had to pay significantly more for several staple food items and household goods and services. In fact the "all items" percentage change in the mean annual price index for Jamaica increased by 19.9 per cent in 1973 over that of 1972. Early in 1974 the Jamaican economy faced a new crisis as a result of the massive increase in prices of crude oil which raised the cost of fuel imports from some $50 million to $150 million annually. Faced with this drain on its modest foreign exchange reserves the Jamaican Government imposed sweeping import and foreign exchange restrictions and increased the bank rate to 9 per cent. Special inducements were given to exporters and incentives were provided to stimulate local agricultural and industrial production while steps were taken to re-negotiate the prices of certain export commodities such as sugar and bananas. Jamaica this year should experience considerable improvement in its balance of payments through increased local production and improved returns from some of its major exports, hopefully combined with a lower rate of inflation.



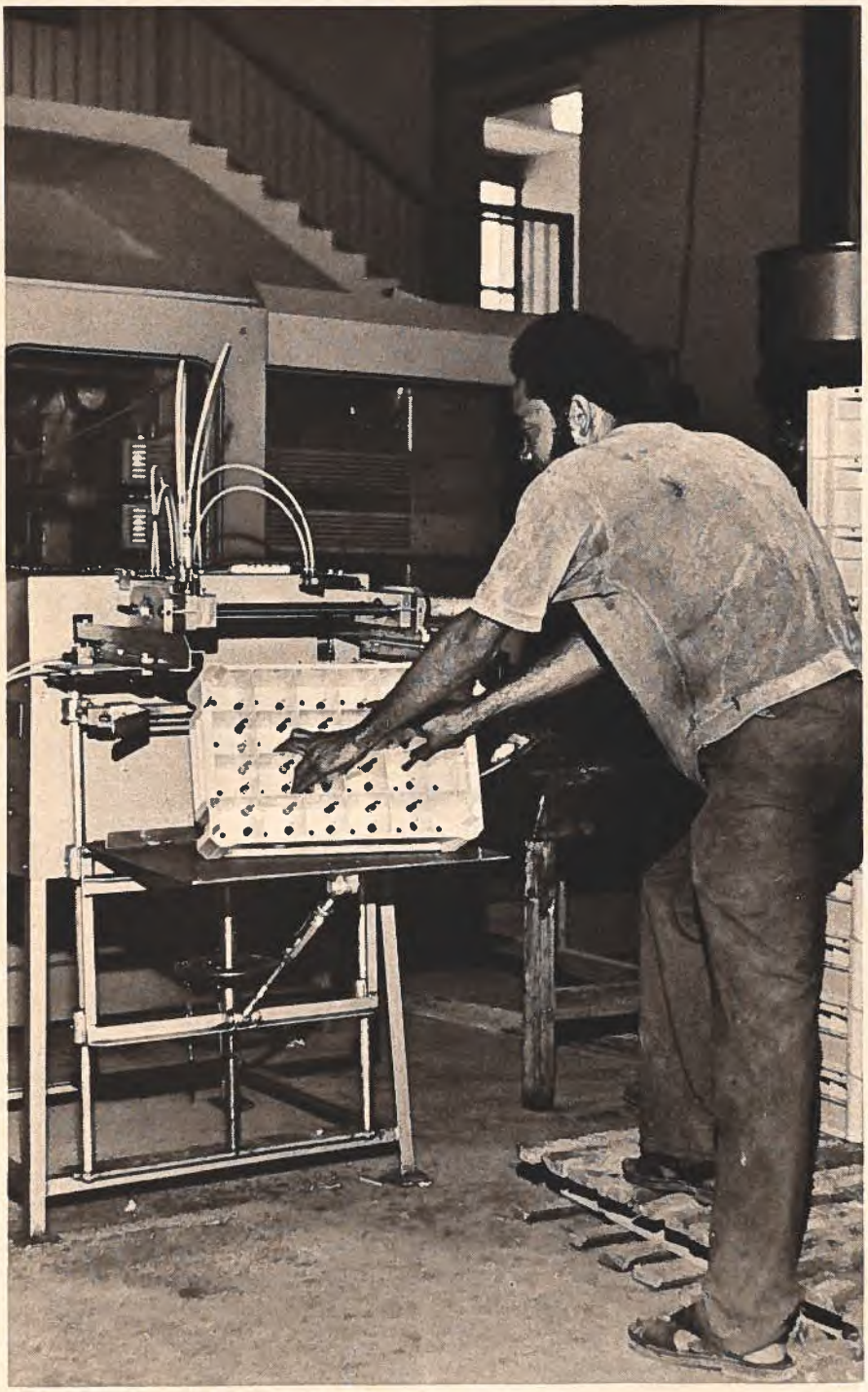
Workers being trained in a flour mill.

Luana project — Despite these current difficulties, Jamaica is entering a new era of economic development. This is supported by a number of encouraging projects in the industrial field, such as the establishment of the Luana Development Company to refine crude petroleum and generate electric power.

Although this project has been at a standstill for some time because of the energy crisis, planning is continuing and it is hoped that the project will get under way during 1974. The Luana Point complex and its extensive infrastructure will offer considerable opportunities to foreign suppliers and, in the medium term, raises prospects for an era of major industrial development in south western Jamaica.

In Kingston, warehousing facilities will be made available to the manufacturer-exporter near a new transshipment port. This project is well under way, with the first berth expected to be completed by early fall this year and the second by January 1975. It will do much to relieve congestion in the port area and serve as a catalyst for the redevelopment of the downtown area of Jamaica's capital city.

More local production — The Government is determined to reduce the island's heavy dependence on imports through greater local production, thereby helping to overcome the high rate of



Making plastic crates in a plant at the Jamaica Industrial Development Corporation's Twickenham Park estate. It is expected that these crates will replace wooden ones now being used.

local unemployment. Its first priority is to reduce imports of luxury consumer goods and, second, to assist businessmen to establish new manufacturing concerns in Jamaica. This policy was reaffirmed in the 1974 budget. Total imports of goods and services in 1974 are to be held within a limit of $645 million. This is an increase of approximately $40 million over 1973 (see Table 2). About $500 million of the total provided for imports is to be allocated in capital goods, raw materials and intermediate goods so as to allow a reasonable expansion of domestic production. This leaves $145 million for consumer goods, which represents a real reduction in this category of imports of approximately $26 million compared with 1973.

Jamaica is heavily dependent on imports and in 1973 the island's import bill, at $604.1 million, represented a significant increase of $112.2 million, or 22.8 per cent over the 1972 figure. This was due largely to the worldwide surge of commodity prices during the year, as well as the 1972 devaluation of the Jamaican dollar which increased the cost of imports while doing little to reduce the volume. Approximately 60 per cent of this increase was in raw materials and 35 per cent in capital goods. New import restrictions brought about a reduction in the relative importance of consumer goods. Import restrictions, imposed late in 1972 for balance of payments reasons, were tightened in January, 1974.

Manufacturing — The manufacturing sector in 1973 contributed $201.6 million (14 per cent) to the gross domestic product and was second after the distribution trades as the main contributor. Of the major components in this category, the fastest growing were alcoholic beverages, tobacco, textiles, printing, publishing, metal products and repairs.

Estimates of selected manufactured goods showed that in many cases production declined during 1973, with notable exceptions being diesel and fuel oils, fertilizers and batteries. Therefore, the apparent increase in contribution of the sector was due largely to over-all increase in price rather than output.

Construction and installation — This sector contributed $175.5 million, or 12.2 per cent, of GDP, moving from fifth to

third largest contributor. The rise in level of activity appears to have been mainly in installation, although the building side of the sector managed to at least maintain the high over-all level of activity achieved in 1972, despite shortages of cement and steel during the latter half of the year. The level of activity should be maintained in 1974 due to a number of major construction projects in progress or announced earlier this year, such as the transshipment port facilities under construction in Kingston, the Government's low income housing projects, and the Luana Development project.

Mining, quarrying and refining — This sector provided $164.1 million to the GDP last year, of which bauxite and alumina contributed $152.1 million, or 92.7 per cent. Bauxite and alumina continued to dominate the export trade, representing 65 per cent of total domestic export earnings. After several weeks of negotiations with the six North American bauxite companies in the spring of 1974, the Government imposed a production levy on bauxite and alumina which, with increased royalty payments, will substantially increase its revenue from this source. The Jamaican Government will earmark the major part of this increase for industrial development purposes.

Agriculture — The increasing emphasis being placed on the agricultural sector has stimulated activity over the past few years but particularly so in the last six months. Significant increases in production are expected in 1974 due to the introduction of government schemes such as Operation Grow and Project Land Lease. Agriculture contributed $127.2 million, or 8.9 per cent, of the total GDP. Exports of agricultural products, excluding sugar, increased by 8.7 per cent, moving from $27.6 million in 1972 to $30.1 million in 1973. The production of sugar — the largest agricultural export and one of the most important foreign exchange earners after bauxite and alumina — was down 12.5 per cent from 373,000 tons to 326,000 tons, and exports were only 261,000 tons compared with 276,000 tons in 1972. Recent government policies aimed at rationalizing sugar production and manufacturing should bring about substantial increases in

TABLE 1

WHAT CANADA SOLD TO JAMAICA, 1971-73

	1971	1972	1973
		Cdn.$'000	
Telecommunication and related equipment	539	473	4,177
Fish, canned	2,165	2,234	3,102
Meat, fresh, chilled or frozen and meat preparations	1,872	1,924	2,184
General purpose industrial machinery	2,118	2,208	2,156
Newsprint paper	1,325	1,454	1,805
Aluminum, including alloys	1,215	1,749	1,659
Electric lighting and distribution equipment	1,270	945	1,475
Metal fabricated basic products	819	949	1,354
Vegetables and vegetable preparations	1,137	714	1,248
Medicinal and pharmaceutical products	878	1,083	1,240
Plate, sheet and strip, steel	73	181	1,122
Containers and closures	604	1,612	945
Shingles and shakes	395	268	706
Plastics basic shapes and forms	520	590	640
Fish preserved, except canned	3,647	2,081	515
Wheat flour	283	193	510
Precious metals, including alloys	9	297	436
Pneumatic tires and tubes	157	166	428
Fruits and fruit preparations	389	514	410
Leather and leather fabricated materials	461	354	362
Sugar and sugar preparations	73	595	319
Office machines and equipment	168	408	336
Hand tools and miscellaneous cutlery	303	258	309
Printed matter	284	326	334
Dairy produce, eggs and honey	235	219	293
Navigation equipment and parts	–	4	277
Apparel and apparel accessories	476	363	274
Other	17,844	17,362	13,308
Total	**39,259**	**39,513**	**41,924**

Source: Statistics Canada

future crop years.

Tourism — Jamaica had 418,257 visitors in 1973, far fewer than expected, but tourism continues to provide the economy with much-needed employment and foreign exchange. Estimates of tourist expenditure in 1973 is $115.8 million, which represents an increase of 7.3 per cent over 1972. Tourist accommodation expanded by 10.6 per cent in 1973, but there was a slight decline in the occupancy rate, which stood at 48.1 per cent for the year.

Regional arrangements — The Caribbean Free Trade Agreement (Carifta) was formed in 1968 to provide for free trade between member countries for products which qualified for regional tariff treatment. Under this agreement, Jamaica's exports to Carifta members increased by 130 per cent between 1970 and 1973, with sales leaping from $9.5 million in 1970 to $21.9 million last year. Carifta has now been superseded by the Caribbean Common Market (CARICOM) which came into effect on August 1, 1973, with the more developed Commonwealth Caribbean Countries - Jamaica, Trinidad and Tobago, Guyana and Barbados as founding members. The four original members have been joined during the course of 1974 by Dominica, Grenada, Belize, Montserrat, St. Vincent, St. Lucia and Antigua. CARICOM's basic provisions are the duty-free movement of goods of Commonwealth origin among member countries, and a common external tariff system with preferential and non-preferential rates. These provisions are regarded by Jamaica as important to its economic development because they will contribute to the expansion of Jamaica's regional market.

In addition, the Caribbean Investment Corporation was created to promote and participate financially in the establishment of industries in the less-developed CARICOM countries. Of interest to present and prospective Canadian investors in the region is the agreement, which became operative in June 1973, of CARICOM countries to harmonize their fiscal incentives to industry. The lesser-developed countries may grant a greater maximum number of years of

TABLE 2

WHAT JAMAICA BOUGHT, 1971-73	1971	1972	1973
		J.$million	
Food	60.2	71.3	84.0
Meat and meat preparations	12.9	16.3	18.2
Dairy products	9.6	9.4	6.4
Fish and fish preparations	9.5	12.1	14.5
Cereal and cereal preparations	14.9	16.8	25.4
Fruits and vegetables	4.5	6.3	7.7
Sugar and sugar preparations	1.4	2.2	1.4
Coffee, tea, cocoa, spices	1.9	1.9	1.5
Beverages	4.7	5.3	5.2
Other	0.9	1.0	3.7
Other non-durable	35.0	43.3	50.3
Medicinal and pharmaceutical products	5.5	6.7	7.4
Textiles	11.1	13.1	13.9
Clothing	4.0	5.8	6.6
Footwear	1.9	1.9	2.8
Printed matter	4.7	5.4	4.4
Other	7.8	10.4	14.7
Durable	43.7	50.8	36.7
Manufactures of metal	2.2	2.8	3.5
Jewellery	1.6	1.9	2.5
Electrical appliances and apparatus	3.4	4.5	3.1
Motor vehicles	19.2	21.7	11.9
Refrigerators	2.2	2.1	2.0
Watches and clocks	12.3	15.4	12.01
Fuels	43.4	44.4	65.4
Other raw materials	116.5	134.6	179.7
Food and tobacco	20.0	23.1	33.7
Chemicals	30.7	38.1	48.8
Paper and paperboard	15.0	14.9	16.5
Base metals	7.7	8.0	11.0
Textiles	14.4	17.4	17.9
Non-metallic minerals	6.5	6.3	9.0
Manufactures of metals (tin-cans, metal containers)	7.5	7.3	8.8
Crude materials (inedible) except fuel	5.8	5.6	2.5
Animal feeds	3.5	3.8	5.6
Other	5.4	10.3	15.9
Construction materials	37.6	35.6	52.8
Wood, lumber and manufactures of wood	8.9	11.1	14.6
Non-metallic mineral manufactures (cement tiles, bricks, etc.)	1.5	2.0	2.7
Iron and steel	20.3	15.0	22.1
Prefabricated buildings, sanitary plumbing, lighting fixtures and fittings, etc.	2.5	2.5	5.1
Other	4.1	4.8	8.3
Transport equipment	28.2	28.1	32.7
Tires and tubes	1.2	0.9	2.0
Railway vehicles, rails and track construction equipment	1.6	1.6	0.3

cont'd TABLE 2

	1971	1972	1973
Aircraft and ships	4.0	4.3	4.3
Motor vehicles (buses, trucks, lorries, vans, etc.) and parts	19.4	19.0	20.7
Other	2.1	2.3	5.4
Other machinery and equipment	93.9	84.7	101.0
Power generating machinery	7.6	8.0	9.7
Agricultural machinery and implements	6.2	5.4	6.6
Mining, construction and other industrial machinery	41.8	38.7	28.2
Office machinery	2.7	3.7	4.7
Metal working machinery	2.2	1.5	2.3
Generators, alternators, motors, batteries, etc.	10.2	6.2	10.0
Insulated cables	1.5	1.8	1.4
Telecommunications equipment	6.9	5.4	9.6
Other electrical	4.5	3.8	10.7
Scientific, medical, optical, measuring and controlling instruments	5.9	5.5	7.1
Other	4.4	4.9	10.7
Total	**459.7**	**493.2**	**604.1**

Source: Economic and Social Survey of Jamaica 1973, National Planning Agency.

tax holiday than the more developed countries, which have agreed not to grant new or extended tax holidays to an agreed list of industries considered suitable for location in the less developed member countries.

After Britain's accession to the EEC, Jamaica and other CARICOM countries began negotiating with the EEC on the terms of an association agreement. Any new arrangement which may be arrived at will become effective early in 1975 when the current Yaoundé and Arusha Conventions lapse. Access for Caribbean sugar into the EEC after the Commonwealth Sugar Agreement expires on December 31, 1974, is expected to form part of the association arrangement.

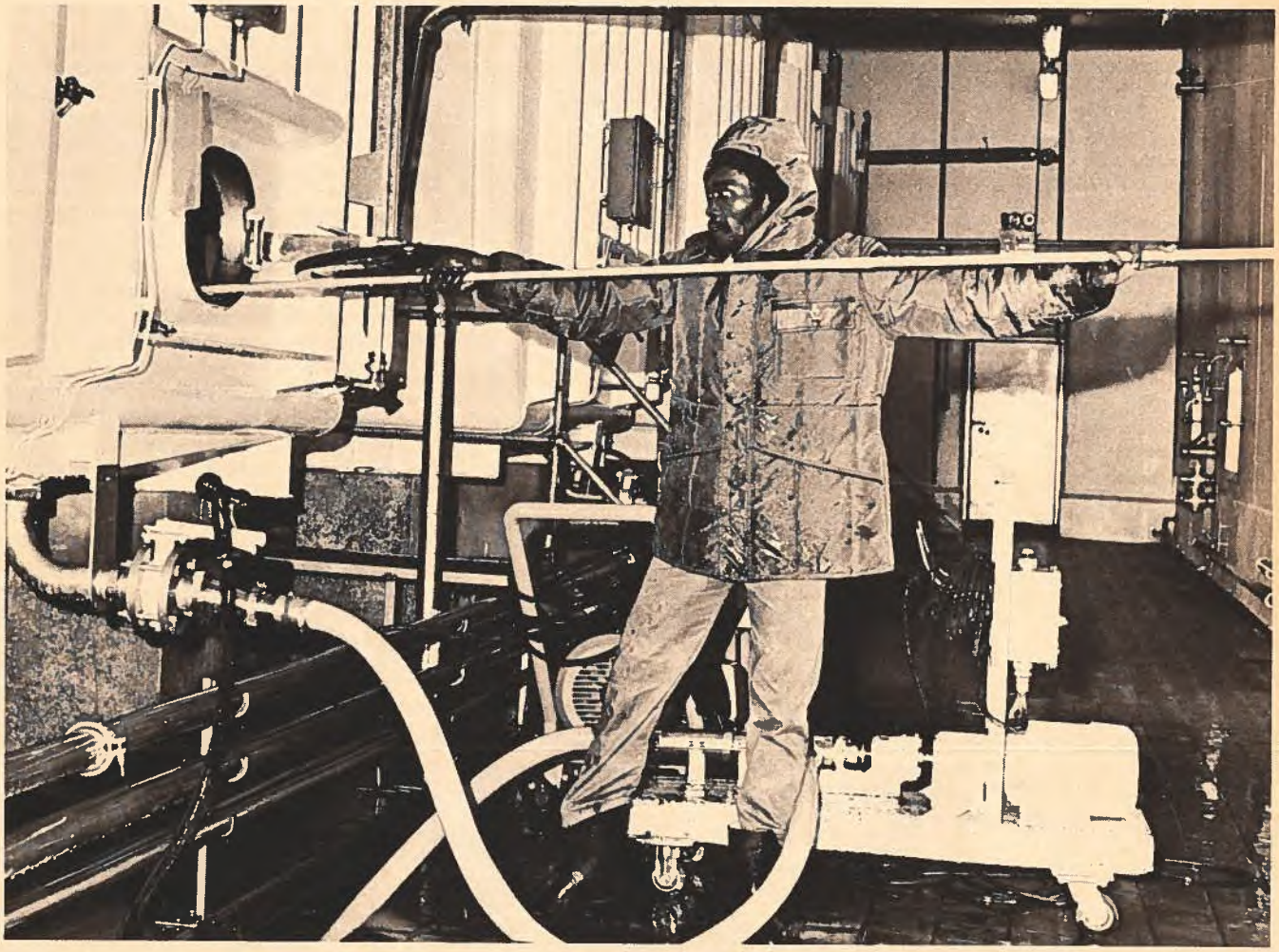
Trade with Canada — Commonwealth Caribbean association with the EEC can be expected to have extensive implications for Canada-Caribbean trade relations, and the Caribbean Heads of Government agreed that an early opportunity should be sought for discussions with Canada on a West Indies trade agreement. The Canadian Government has welcomed this opportunity to review bilateral trade relations.

Jamaica's main trading partners are the United States, Britain and Canada. Canada increased its total sales to Jamaica in 1973 by approximately 10 per cent over 1972 but its percentage of total exports to Jamaica dropped from 9 per cent in 1971 to about 7 per cent in 1973.

Nevertheless, Canada has continued to provide an extensive range of products to Jamaica (see Table 1). In fact, there was a slight shift in emphasis towards capital goods. For example, export of telecommunications and related equipment in 1973 increased tenfold over 1972, electric lighting and distribution equipment increased by more than 50 per cent, and Canada made an important contribution to imports of navigation equipment and parts.

Canada's main imports from Jamaica changed little from 1972 and 1973. Again alumina leads the list, representing approximately 80 per cent of the total of $22.04 million.

In summary, import controls for balance of payments reasons temporarily limit opportunities for Canadian sales



Checking beer vats in the Desnoes and Geddes brewery, which uses Canadian malt for its Red Stripe beer.

of consumer goods, but Jamaica's thrust toward further industrialization should provide new opportunities for the sale of Canadian equipment, engineering services and industrial materials. In addition, the expansion of local manufacturing will provide opportunities for Canadian companies interested in participating in these new manufacturing operations.

For more information concerning opportunities for your product or on how to sell or invest in Jamaica write to the Commercial Counsellor, Canadian High Commission, P.O Box 1500, Kingston 10, Jamaica, or contact the Caribbean Division, Western Hemisphere Bureau, Department of Industry, Trade and Commerce, Ottawa K1A 0H5. □

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 International Bureaux, 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.

Note: The following rates were current at Nov. 29. Because of unsettled market conditions exporters should consult their bankers for up-to-date quotations.

Country and Currency	foreign currency unit in Canadian dollars	Canadian dollar in foreign currency units
Algeria		
Dinar	.2380	4.20
Arab Republic of Egypt		
Pound (official)	2.5229	.40
Argentina		
Peso (financial)	.0989	10.11
(commercial)	.1974	5.07
Australia		
Dollar	1.2996	.77
Austria		
Schilling	.0558	17.92
Bahamas		
Dollar	.9872	1.02
Belgium and Luxembourg		
Franc	.0265	37.74
Bermuda		
Dollar	1.0397	.96
Bolivia		
Peso	.0494	20.24
Brazil		
Cruzeiro (official free)	.1352	7.40
Britain		
Pound	2.3007	.43
British Honduras		
Dollar	.6078	1.64
Burma		
Kyat	.2050	4.88
Chile		
Escudo (commercial)	.0007	1,428.57
(financial)	.0006	1,666.67
China, People's Republic of		
Yuan	.4188	2.39
Colombia		
Peso (fixed)	.0360	27.78
Costa Rica		
Colon	.1185	8.44
Cuba		
Peso		N.A.[10]
Czechoslovakia		
Koruna (fixed basic rate)		N.A.[10]
Denmark		
Krone	.1677	5.96
Dominican Republic		
Peso	.9872	1.02
Ecuador		
Sucre (official)	.0390	25.64
El Salvador		
Colon	.3949	2.53
Fiji		
Dollar	1.2340	.81
Finland		
Markka	.2686	3.72
France, Monaco, etc.[1]		
Franc	.2136	4.68
French Pacific[2]		
Franc	.0110	90.90
Franco-African Republics[3]		
Franc	.0042	238.10
Germany		
D Mark	.3992	2.51
Ghana		
New Cedi	.8555	1.17
Greece		
Drachma	.0333	30.03
Guatemala		
Quetzal	.9872	1.02
Guyana		
Dollar	.4444	2.25
Haiti		
Gourde	.1974	5.07
Honduras		
Lempira	.4936	2.03
Hong Kong		
Dollar	.2035	4.91
Hungary		
Forint (official)	.0869	11.51
Iceland		
Krona (official)	.0083	120.48
India		
Rupee	.1229	8.14
Indonesia		
Rupiah	.0024	410.00
Iran		
Rial	.0134	74.63
Iraq		
Dinar	3.3346	.30
Ireland		
Pound	2.3007	.43

Country and Currency	foreign currency unit in Canadian dollars	Canadian dollar in foreign currency units	Country and Currency	foreign currency unit in Canadian dollars	Canadian dollar in foreign currency units
Israel			**Philippines**[5]		
Pound	.1646	6.08	Peso (free)	.1402	7.13
Italy			**Poland**		
Lira	.0015	666.66	Zloty (fixed basic rate)	.2577	3.88
Jamaica			**Portugal & Overseas Provinces**[6]		
Dollar	1.0859	.92	Escudo	.0392	25.51
Japan			**Saudi Arabia**		
Yen	.0033	303.03	Riyal	.2850	3.50
Kenya[4]			**Sierra Leone**		
Shilling	.1379	7.25	Leone	1.2371	.81
Korea, Republic of			**Singapore**		
Won	.0024	404.38	Dollar	.3358	2.98
Lebanon			**South Africa**		
Pound (free)	N.A.[10]		Rand	1.4314	.70
Libya			**Spain & Dependencies**		
Dinar	2.777	.36	Peseta	.0172	58.14
Malawi			**Sri Lanka**[7]		
Kwatcha	1.2280	.81	Rupee	.1475	6.78
Malaysia			**Sweden**		
Dollar	.4210	2.38	Krona	.2320	4.31
Mexico			**Switzerland**		
Peso	.0780	12.82	Franc	.3704	2.70
Morocco			**Syria**		
Dirham	.2353	4.25	Pound (free)	.2711	3.69
Netherlands			**Thailand**		
Florin	.3849	2.60	Baht (free)	.0493	20.28
Netherlands Antilles			**Trinidad & Tobago**[8]		
Florin	.5515	1.81	Dollar	.4793	2.09
New Zealand			**Tunisia**		
Dollar	1.2908	.77	Dinar	2.2684	.44
Nicaragua			**Turkey**		
Cordoba	.1410	7.09	Lira	.0713	14.03
Nigeria			**United States**		
Naira	1.4700	.68	Dollar	.9872	1.02
Norway			**Uruguay**		
Krone	.1838	5.44	Peso (free)	.0007	1,428.57
Pakistan			**Venezuela**		
Rupee	.0997	10.03	Bolivar (official free)	.2302	4.34
Panama			**Yugoslavia**		
Balboa	.9872	1.02	Dinar (official)	.0571	17.51
Paraguay			**Zaire, Republic of**[9]		
Guarani (free)	.0078	128.21	Zaire	1.961	.51
Peru			**Zambia**		
Sol (free)	.0225	44.44	Kwacha	1.3893	.72

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. Rate also applies to Tanzania and Uganda.

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

6. Approximately same for Portuguese territories in Africa.

7. Formerly Ceylon.

8. E. C. dollar, at same rate, used in Leeward and Windward Islands.

9. Formerly Congo (Kinshasa).

10. Rates not available at press time.

Export Opportunities

The inquiries listed below come from several sources, including various Branches of the Department in Ottawa and from the Trade Commissioner Service posts abroad. More information on these items can be had by contacting the post at the address shown under each item. If the address is that of the company, please make direct contact.

Automotive

BRAZIL — Brazilian company is interested in exclusive agency and distribution agreement with manufacturers of automotive vehicle parts and accessories such as ball and roller and needle bearings, electrical car parts, timing chains, carburetors, suspension parts, universal joints, differentials, spark plugs, etc.: Consul and Trade Commissioner, Canadian Consulate, Caixa Postal 6034, Edificio Scarpa, Avenida Paulista, 1765, 9 andar, Sao Paulo, Brazil.

MALAYSIA — All types of used tractors and lorries: Commercial Division, Canadian High Commission, P.O. Box 990, Kuala Lumpur, Malaysia.

Chemicals

ARGENTINA — Argentine company requires 5 tons of glutaric acid: Insumos Quimicos S.A., Lavalle 1546, piso 3 "B", Buenos Aires, Argentina. Attention: Sra. Martha Haussler.

BRAZIL — Vanadium pentoxide, molybdenum trioxide and scheelite: Consul and Trade Commissioner, Canadian Consulate, Caixa Postal 6034, Edificio Scarpa, Avenida Paulista, 1765, 9 andar, Sao Paulo, Brazil.

INDIA — A manufacturer of heavy duty pumps, compressors and gas cylinders requires liquid acetone conforming to IS: 170-1966 at rate of 31 K.L./mth: Mr. C.S. Iyer, Purchase Officer, Bharat Pumps and Compressors Ltd., Naini, Allahabad, India.

Clothing

SINGAPORE — Shirts (ladies' and men's), ties, socks and panty hose, underwear (ladies' and men's): Commercial Counsellor, Canadian High Commission, P.O. Box 845, Faber House 7 & 8 floors, 230/236 Orchard Road, Singapore 9, Singapore.

Construction

IVORY COAST — French consulting firm working for Ivorian group requests offers for a turnkey sawmill plant project with dryer and particle boards. Size of logs: 60 cm to 2 m in diameter. Minimum finished production: 10,000 cubic metres per year of sawn wood: Commercial Secretary, Canadian Embassy, P.O. Box 21194, Le General Building, Abidjan, Ivory Coast.

Electrical and Electronics

INDIA — Tender No. 12-112/74-MMD by the Posts & Telegraphs Directorate of India for the supply of TV end links for transmission of signals. The bid deadline is February 11, 1975. Tender documents can be bought from the Assistant Director General (Imports), Room 514, P&T Directorate, Parliament Street, New Delhi-110001, India. The cost of tender documents is Rs.20/- per set.

SWITZERLAND — A Swiss firm is interested in representation of a Canadian firm for automation and electronic equipment: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Foodstuffs

MALAYSIA — Whey powder (dried) for manufacturing animal feed.

Pure refined lard in 37 lb. tins and canned ham in 2 lb. tins: Commercial Division, Canadian High Commission, P.O. Box 990, Kuala Lumpur, Malaysia.

SWITZERLAND — Food specialties in cases of 48/3 oz. cans (except frozen).

Salt cod: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Footwear

SINGAPORE — Shoes (ladies' and men's): Commercial Counsellor, Canadian High Commission, P.O. Box 845, Faber House, 7 & 8 floors, 230/236 Orchard Road, Singapore 9, Singapore.

SWITZERLAND — Moccasins, apres-ski boots: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Furniture

DENMARK— A Danish firm is seeking a manufacturer of wooden parts for furniture industry such as doors, cupboard sides, shelves, etc.: Commercial Counsellor, Canadian Embassy, Prinsesse Maries Allé 2, Copenhagen V, Denmark.

Investment Wanted

MALAYSIA — A Malaysian investment/credit corporation is seeking $1 million to be invested in small Malaysian industries dealing in palm oil, rubber, etc.: Commercial Division, Canadian High Commission, P.O. Box 990, Kuala Lumpur, Malaysia.

Leather Goods

SINGAPORE — Handbags and wallets, luggage and belts: Commercial Counsellor, Canadian High Commission, P.O. Box 845, Faber House, 7 & 8 floors, 230/236 Orchard Road, Singapore 9, Singapore.

Machinery and Equipment

BRAZIL — Folding and profile-making machines to work with steel (in coil or sheet): Consul and Trade Commissioner, Canadian Consulate, Caixa Postal 6034, Edificio Scarpa, Avenida Paulista, 1765, 9 andar, Sao Paulo, Brazil.

CZECHOSLOVAKIA — System for measuring water temperature in dams (measuring required is 0.5 - 1 m under water level) which could be used in winter months. Also stations operating automatically for water pollution control in streams and rivers: Commercial Secretary, Canadian Embassy, Chancery, Mickiewiczova 6, Prague 6, Czechoslovakia.

SINGAPORE — Singapore Public Utilities Board is calling for tenders for the supply, installation and commissioning of the following equipment for the Second Stage Development of the Senoko Power Station: 6,600 V switchgear, 415

V switchgear, control boards, transformers, isolated phase bus ducts, dc systems, cables, cable trays, conduit and grounding for three 250 MW steam boilers and turbine generators. Applications may be made directly to The Project Manager, Monenco Asia (Pte) Ltd., 825 International Plaza, Anson Road, Singapore 2, with a copy of the application to: The Chief Electrical Engineer, Public Utilities Board, City Hall, Singapore 6. Tender documents will be available on the submission of a refundable tender deposit of S$1,000 (or about Cdn. $400) directly to Monenco. This tender will close on April 3, 1975 at 2:15 p.m. Singapore time.

A Singapore hardware and machinery company is interested in obtaining a directory on hand tools and machinery manufacturers, etc.: Commercial Counsellor, Canadian High Commission, P.O. Box 845, Faber House 7 & 8 floors, 230/236 Orchard Road, Singapore 9, Singapore.

SPAIN — Spanish producer of olives and olive oil requires leak detection equipment for the olive oil canning line; equipment to open, pack and seal cases; and a new system for packaging olive oil: Commercial Counsellor, Canadian Embassy, Apartado 117, 35, Nunez de Balboa, Madrid, Spain.

SWITZERLAND — Cement, structural steel and sanitary equipment.

Guide bushings: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Materials

INDIA — A tender for the supply of 10 seamless steel cylinders to use with acetylene gas. The bid deadline is February 28, 1975. There are no formal tender papers to be bought. Use own letterheads. Tendering authority: Chief Purchase Officer, Beas Purchase Organization, Talwara Township, District Hoshiarpur, Punjab, India.

SWITZERLAND — Goose and duck feathers, eider-downs.

Electrolytic copper wire: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Miscellaneous

NORWAY — Rollers for window shades: Commercial Secretary, Canadian Embassy, Postuttak, Oslo 1, Norway.

SWITZERLAND — Cassette recorders for language training, cameras and movie cameras — super 8 and 16 mm retroprojectors.

Scissors for household, nail scissors, nail files, tweezers.

Crystal, porcelain and earthenware: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 8, 3000 Berne, Switzerland.

UNITED STATES — A manufacturers' representative covering New England and State of New York needs sources of lead crystal giftware made to specification. Canadian source should be prepared to quote prices in U.S. funds, including U.S. Customs duty, c.i.f. Boston.

Local distributor with U.S.A. coverage of State and municipal Governments seeking sources of coin operated theft prevention systems for bicycle parking, and parking control systems. Devices should be extremely secure to overcome vandalism. Quote prices in U.S. funds, including U.S. Customs duty, c.i.f. Boston.

Representative with coverage in New England seeking sources of: wood and/or aluminum sliding doors and windows, with or without thermo barrier; highly decorative framed mirrors; and decorative wall plaques. Please quote prices in U.S. funds, including U.S. Customs duty, c.i.f. Boston. Contact: Canadian Consulate General, 500 Boylston Street, Boston, Mass. 02116, Tel. (617) 262-3760.

Office Supplies

SWITZERLAND — Erasers, desk sets, letter clips, staplers, gifts suitable for sale in stationery stores: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Pharmaceuticals

BRAZIL — Vitamin E (99 per cent, oil) and choline chloride (98/100 per cent, pharmaceutical): Consul and Trade Commissioner, Canadian Consulate, Caixa Postal 6034, Edificio Scarpa, Anenida Paulista, 1765, 9 andar, Sao Paulo, Brazil.

Recreation and Toys

DENMARK — Mechanical fetch-bucks and training sets for dogs: Commercial Counsellor, Canadian Embassy, Prinsesse Maries Allé 2, Copenhagen V, Denmark.

SWITZERLAND — Fitness equipment for home training: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne, Switzerland.

Textiles

DENMARK — Major Danish carpet manufacturer requires between 1,500 and 2,000 rolls a year of patterned carpets to supplement his own production: Commercial Counsellor, Canadian Embassy, Prinsesse Maries Allé 2, Copenhagen V, Denmark.

MALAYSIA — Shirting cloth, suiting materials, buttons, threads and zippers: Commercial Secretary, Canadian High Commission, P.O. Box 990, Kuala Lumpur, Malaysia.

Foreign Tariffs and Trade Regulations

St. Lucia

The Government announced on June 15, 1974 that salesmen who wish to solicit orders in St. Lucia for goods manufactured or produced outside the Carribean Common Market will have to obtain work permits. A standard work permit application form available from the Minister of Labour, Government Headquarters, Castries, St. Lucia, should be submitted and approved before salesmen leave Canada. Work permits for Canadian salesmen will cost EC $100. (Canadian $48.) and will be valid for one calendar year. Visiting salesmen are also liable for the Commercial Travellers Licence fee of EC $120. (Canadian $57.50) payable to the Castries City Council. Under the Exempted Persons Order No. 8 of 1971, business visitors who have a local agent or are seeking one or who visit St. Lucia to give technical advice to any local enterprise are exempt from the work permit and fee requirements.

Malaysia

Effective November 12, 1974, the revised import duties on unmanufactured tobacco, cigarettes, cigars and liquor are as follows:

Unmanufactured tobacco	— Mal. $11.20 per pound
Cigarettes	— Mal. $15.00 per pound
Cigars	— Mal. $20.00 per pound
Liquor (except malt)	— 10 per cent of current duties

West Malaysia

Effective October 17, 1974, the importing of the following classified goods into the principal customs area of the States of Malaya and into Penang Island from all countries has been subjected to specific licencing and quantitative restrictions;

Heading No.	Goods Description	Country
56.07	Woven fabrics of manmade fibres (discontinuous or waste):	
	Of synthetic fibres:	
119	other than batik or suiting, printed	All countries
129	other than suiting, coloured or dyed	All countries
199	other than suiting, not printed coloured or dyed	All countries

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.

Electrolytic coating process

American company offers under licence the Canadian manufacturing rights to an electrolytic plating process that offers exceptional corrosion protection when applied over carbon steel. Results of the tests show 500 hours resistance in a 5 per cent neutral salt spray test as well as 40 hours resistance in the Cass Test. The company claims that over 450 million parts have already been plated for use primarily by the automotive industry. The process is ideally suited for small and medium-sized parts which are to be exposed to erosive conditions. Literature available. **Item 3097**

Equipment for sewage purification plants

Swiss firm seeks to licence a Canadian company to manufacture its new mechanical equipment for industrial and communal sewage purification plants. One product is a grab rake designed to remove the raked material completely from the sewage and to discharge it into a refuse container for further treatment. Claimed advantages of this rake are its low height and its structural simplicity. Another product is a blade clearer for collecting undissolved substances which the rake failed to trap and channeling them to a point where they can be removed in bulk. There are no motors or other electrical installations within the area of the settling tank; operation is effected by a purely mechanically induced upward and downward motion of the clearing plate. Literature available. **Item 3098**

Wood-drying equipment

Swiss firm offers Canadian manufacturing rights, under licence, for its wooddryer. According to this new drying process, the temperature in the drying chamber is increased to about 40°C (104°F). The air inside the chamber is dried through condensation and then reheated. The air circulation is then intensified and, through an appropriate disposition of the inside of the drying chamber, is pushed through the properly spaced boards of the wood pile. This process is combined with a gradual reduction of the relative humidity inside the chamber through the use of a heat pump. The firm claims that the main advantages include moderate production costs and the achievement of continuing better qualities of the dried wood. Literature available. **Item 3099**

Filter elements for painting and drying plants

German firm offers the rights to manufacture under licence in Canada its filter elements for installation in painting and drying plants. The filter modules are designed to span the entire length and width of the spray booth. A movable grid is connected to the ceiling filter modules by means of hinges and locked in place by quick release clamps. Holding and clamping strips support the layer of filter matting during the locking operation and provide a seal against air over and underpressure and the proper tension to eliminate any fluttering. Literature available. **Item 3100**

Tube calibrating and surfacing

American company offers under licence the Canadian manufacturing rights to its process and equipment for calibrating and surfacing tubes. This process is well adapted for the manufacture from suitable raw tube stock into finished tubing of the hydraulic and pneumatic grades. The process is applicable to both seamless and electric welded rolled tubing and also works on undrawn tubing, including the welded variety. Company claims that the equipment is very versatile, requiring less than five minutes of set up time to change the tooling to run tubing of a different diameter. Literature available. **Item 3101**

International Projects

ARGENTINA — AGRICULTURAL DEVELOPMENT

The Inter-American Bank has approved two loans totaling $45 million to help finance a program of rehabilitation of irrigated land, agricultural development and colonization in the Province of San Juan in the western part of Argentina.

The loans — one for $34 million from the ordinary capital resources of the Bank and the other for $11 million from the Fund for Special Operations — were extended to the Republic of Argentina, and will be used by the Province of San Juan through its Department of Water Resources to benefit a total of 14,680 farm families in a net area of 256,139 acres under intense cultivation in the Tulum, Ullum and Zonda Valleys.

The total cost of the project is estimated at $106.7 million, of which the two Bank loans will cover 42.2 per cent and local contributions the remaining 57.8 per cent.

The project includes two subprojects, as follows:

- A rehabilitation subproject designed to improve the productivity of 247,000 acres of land currently under cultivation by the improvement and extension of irrigation canals and drains, the construction of earthfill dikes, the installation of a pumping plant and construction and equipping of water wells; the purchase of machinery, equipment and vehicles, and the provision of farm credit to families owning less than 8.6 acres of property in the zone.

- A colonization subproject of the "pilot type" to provide 9,139 acres of government land with irrigation for 680 families through the construction of irrigation infrastructure, the clearing and grading of land, the construction of a civic center and rural houses and sheds, expansion of the agricultural extension service, the acquisition of machinery, equipment and vehicles and the provision of farm credit for the settlers.

Implementing organization: The Province of San Juan, through its Department of Water Resources.

Procurement: International public bidding on goods and services imported with resources of the loan extended from the Bank's ordinary capital resources and international public bidding among Bank member countries on goods and services imported with resources of the loan extended from the Fund for Special Operations. National public bidding on domestic purchases.

COSTA RICA — HYDRO-ELECTRICITY

The Inter-American Bank has approved a $50.5 million loan to help Costa Rica build a hydroelectric plant with a generating capacity of 135,000 kilowatts on Lake Arenal in the northwestern corner of the country.

The loan will be used by the Instituto Costarricense de Electricidad (ICE), the national power agency, to help double its installed generating capacity by 1978 when the three generating units to be installed at the Arenal plant come on stream. In 1973 ICE provided approximately 84 per cent of the total power sold by the National Interconnected System which supplies the major cities and towns of Costa Rica. The total cost of the project is estimated at $91,010,000, of which the Bank loan will cover 55 per cent and ICE the remaining 45 per cent.

Lake Arenal, site of the project, is located at a height of approximately 1,700 feet near Arenal volcano in Guanacaste Province and is approximately 38 miles east of the city of Canas on the Inter-American Highway. The only existing outlet of the partly-dammed lake is the Arenal River which flows northeast, emptying eventually into the Atlantic Ocean.

The resources of the Bank will enable ICE to build a 60- meter earth and rock dam and a spillway at the outlet of the lake, as well as conduction works and a powerhouse for the installation of three 45,000-kilowatt generating units at the end of the lake opposite that of the dam. The generating units will discharge directly into the Santa Rosa River which flows toward the Pacific Ocean.

In addition, the project will increase and regulate the flow of the Santa Rosa River, thereby helping to develop in a later stage another hydroelectric project downstream and carry out an irrigation project in Guanacaste Province.

Implementing organization: Instituto Costarricense de Electricidad (ICE), Apartado 10032, San José.

Procurement: International public bidding on goods and services imported with resources of the Bank loan. National public bidding on domestic purchases.

INDONESIA — WATER SUPPLIES

The people of five cities in Indonesia will get better water supplies as a result of a $14.5 million loan approved by the World Bank. The loan will help finance water supply improvements in Java, Sumatera and Kalimantan. It will also help develop the organization to implement a national long-term water supply program. The project will be the first stage, covering the years 1975 through 1981, of implementing master plans for water supply in the five cities. They are Malang, Purwokerto and Banyuwangi in Java; Jambi in Sumatera; and Samarinda in Kalimantan.

The total population of these five cities is now about one million and is projected to increase to 1.2 million by 1981. The project, which is expected to be completed in 1981, will bring public water supply to half of the population compared to 16 per cent now. The cities were selected by taking into consideration such factors as their importance as provincial capitals, trade or tourist centres, development and economic potential, and several other factors.

Sub-projects in the respective cities include development of surface or underground water sources, treatment plants, pumping stations, storage tanks, transmission mains and primary and secondary distribution mains, as well as public standpipes, fire hydrants and public bathhouses.

Implementing organization: Directorate of Sanitary Engineering.

Procurement: All contracts for equipment and material to be financed under the project loan will be awarded after international competitive bidding in accordance with the Bank's Guidelines.

Qualified local manufacturers will be accorded a margin of preference of 15 per cent or the actual customs duties, whichever is less, for the purpose of bid comparison. Civil works contracts would be awarded on the basis of local competitive bidding in accordance with government regulations.

Consultants: Detailed engineering design and construction supervision by foreign and local consultants for the projects; management and technical assistance on the national and local levels for implementation of proposed changes in organizations and working procedures, and for training staff; and feasibility studies for a second group of seven water supply projects.

PHILIPPINES — MARITIME TRANSPORT

The World Bank has approved a loan of $20 million to help finance modernization and improvement in maritime transport in the Philippines. Inter-island shipping is of vital importance for this country of some 7,000 islands. Shipping has in the past played a dominant role in the transport sector of the Philippines and continues to provide an essential means of transport and communication between the islands of the archipelago.

The loan will help finance the acquisition of new and used vessels to replace ships over 20 years old, the major repair of ships up to 16 years old and technical assistance. A principal objective of the project is to assist in strengthening existing institutions and in organizing the Maritime Industry Authority (MIA) established by Presidential Decree in June 1974. MIA will prepare with assistance from the Bank, a ten-year Maritime Industry Development Program which will provide for better coordination in the maritime sector, leading to improvement in efficiency and safety standards of the inter-island fleet.

Implementing organization; Development Bank of the Philippines (DBP)

Procurement: Bids for new ships would be invited on the basis of international competitive bidding, and contracts let under procedures consistent with the Bank's guidelines. A 15 per cent domestic preference would be used in bid evaluation or the import duty, if lower. Used ships would be procured after DBP has secured several quotations from international shipbrokers which will be reviewed by qualified marine surveyors. Repairs would be carried out according to the technical standards of an international classification society or to other Bank-approved marine inspection services. International competitive bidding procedures for repairs and conversions are impracticable. They would be carried out in accordance with normal commercial practices.

Consultants: (i) A maritime financial adviser and a naval architect/technical adviser to assist the Maritime Section of the Industrial Department in DBP; (ii) Marine surveyor experts to assist the marine inspection service conducted by the Philippine Coast Guard, assisted by MIA.

The Ocean Freight Market

Prepared by the Office of the Transportation Policy Adviser December 16, 1974.

During November, there were a number of rate increases in the dry cargo charter market, although the rate stability evident since the summer months continued in some trades. Notwithstanding this rate situation, a relatively low level of inquiry was apparent for charter tonnage. At the end of October, for the third consecutive month, laid-up shipping increased to 1.3 million tons deadweight from 933,000 tons (almost 40 percent dry cargo vessels) at the end of September. While the October total was the highest laid-up volume since April 1973, it was only one-third of the October 1972 total.*

In the Hampton Roads/Japan coal trade, rates increased for prompt loading vessels, likely as charterers hedged against the possibility of a prolonged U.S. coal miners' strike. Ships of 30,000 to 35,000 tons were fixed at U.S.$19.50 per ton during November compared to October rates ranging between $17.75 and $19.50 and September fixtures as low as $16.50. Rates for the coal movements between Vancouver and Western Europe ranged between U.S.$15.70 and $16.50 per ton, significantly higher than the $12.00 rate for a similarly sized movement of 50,000 tons in September. North Atlantic grain rates during November were relatively stable. Heavy grain fixtures from the St. Lawrence to Belgium/Holland/Germany during November were contracted at rates of between U.S.$7.50 and $8.50 per ton which showed little change with the rates predominating during the summer months.

Time chartering was relatively active during November. For example, there were 14 November fixtures reported for dry cargo vessels for periods of one and one-half years and over compared to ten fixtures in October and seven in September. November rates approximated levels in the preceding month. The time charter fixtures included three for Canadian ship operating companies, who together fixed 124,211 tons deadweight.

After a general but slight increase during October, tanker rates again dropped to the very low September levels. For tankers between 100,000 and 150,000 tons in the Persian Gulf/Western Options trade, November fixtures ranged between Worldscale 38 and 57.5 (about Cdn.$3.77 to $5.71 on vessels discharging in Eastern Canada) compared to Worldscale 65 to 80 in October 1974 and Worldscale 45 to 70 in September. In October 1973 a record rate was established for this size tanker (100,000 - 150,000 tons) at Worldscale 450, and tankers exceeding 200,000 tons deadweight traded up to Worldscale 410, substantially higher than the low of Worldscale 42.5 in November of this year.

During November rates for crude oil transportation from the Caribbean to Eastern Canada ranged between Worldscale 110 and 140 (Cdn.$2.47 to $3.15), compared to Worldscale 115 and 130 in October 1974 and Worldscale 305 and 355 in November 1973. Also during November a tanker was fixed at Worldscale 75 (about Cdn.$4.60 per ton) for a movement between Vancouver and Portland, Maine. This rate was the lowest recorded since this trade was started during the last quarter of 1973, when rates climbed as high as Cdn.$12.32 per ton.

*British Chamber of Shipping statistics as reported in the "Daily Freight Register" of November 25, 1974 and the "Journal of Commerce" of December 3, 1974.

Voyage Charters (Cdn. $ per long ton)

I. HEAVY GRAIN

Great Lakes to Belgium/Holland/Germany			
November	1974	17.28 to 20.73	11,500 to 16,250
October	1974	12.28 to 20.62	13,000 to 19,500
September	1974	15.29 to 17.75	6,000 to 22,000
November	1973	30.60 to 40.48	9,800 to 14,500
St. Lawrence to Belgium/Holland/Germany			
November	1974	7.40 to 8.39	37,000 to 72,500
October	1974	7.61	55,000
September	1974	8.28	27,500
November	1973	12.83 to 13.92	14,000 to 39,000

II. COAL

Hampton Roads to Japan

November	1974	14.31 to 19.25	25,000 to	54,000
October	1974	12.52 to 19.15	20,000 to	52,000
September	1974	12.58 to 19.63	23,000 to	52,000
November	1973	14.31 to 23.20	35,000 to	85,000

British Columbia to Continent

November	1974	15.50 to 16.29	50,000 to	52,000
October	1974	19.64	25,000	
September	1974	11.84 and 13.71	38,000 and	50,000

III. CRUDE PETROLEUM

Persian Gulf to Western Options (Worldscale Rates, Not Dollars[1])

November	1974	38.0 to 57.5	85,000 to	285,000
October	1974	64.0 to 85.0	67,000 to	280,000
September	1974	37.5 to 100.0	33,000 to	278,000
November	1973	50.0 to 245.0	46,000 to	250,000
October	1973	80.0 to 575.0	30,000 to	255,000

Caribbean to U.S. North Atlantic[2]

November	1974	120.0 to 150.0	25,000 to	48,000
September	1974	140.0	19,500	
November	1973	187.5 to 312.5	18,000 to	52,000

Time Charters

Dry Cargo Ships of 20,000 to 30,000 tons Deadweight for Up To 12 Months chartering

November	1974	6.91 to 8.98	14 fixtures
October	1974	6.87 to 9.60	6 fixtures
September	1974	6.60 and 7.69	2 fixtures
November	1973	5.92 to 10.76	9 fixtures

[1] Actual rate in dollars depends on specific ports of origin and destination of cargo. "Worldscale" rates are utilized as percentages of base rates (termed Worldscale 100) as published in the tariff "Worldwide Tanker Nominal Freight Scale". Western Options refers to the United Kingdom, Northwestern Europe, Scandinavia and the Atlantic Coast of North America.

[2] including Portland, Maine, the terminus of the Montreal/Portland Pipeline.

I T & C Publications

The Department of Industry, Trade and Commerce puts out many publications during a calendar year. The subjects covered are diverse, from airports to wire, from auto parts to wallpapers. There are reports on the structure and current state of Canadian and foreign industries, brochures outlining government assistance available to Canadian manufacturers and exporters, and even a guide to sources of venture capital.

A new directory of Department publications is available free of charge from the Promotion Planning Division, Information Services Branch, Department of Industry, Trade and Commerce, 112 Kent Street, Ottawa, Ontario K1A 0H5.

Trade Commissioners on Tour

Businessmen with an interest in Ecuador are reminded that N.R. Cumming, Commercial Counsellor and J.H. Latham, Assistant Commercial Secretary, whose offices are in the Canadian Embassy in Bogota, Columbia, visit Quito regularly. These visits to Ecuador take place during the last week of every month and Mr. Cumming and Mr. Latham can be reached in Bogota, in advance, or in Quito at the Colon or Quito Intercontinental Hotels.

Next month in Canada Commerce

**We take a look at a most unusual teacher;
opportunities in Venezuela;
International Women's Year;
and the summer job.**

Tourism continues to be the mainstay of the economy in the Bahamas and Paradise Beach at Nassau is one of the popular tourist attractions.

A LOOK AT THE BAHAMAS

M. J. PHILLIPSON, Commercial Officer, Kingston

The Bahamas' recent quiet constitutional advance from colony to independent nation has seen little change in government policies or institutions but it has served to bring about a major improvement in local business confidence. Economic and political uncertainties that tended to characterize the immediate pre-independence years seem to have been favourably resolved in the minds of both local and foreign investors and entrepreneurs.

The Government has been actively engaged in defining its foreign policy and in developing policies such as those on citizenship, foreign investment and territorial sovereignty required by the country's new status. The Bahamas has joined the United Nations, the Organization of American States, and is a member of the "Canadian Group" in the IBRD/IMF. Because of its archipelagic geographic configuration it has taken a particularly keen interest in the continuing international considerations of the Law of the Sea.

Domestically, the Bahamas is concerned with stimulating and diversifying its economic base. It has so few natural resources that providing satisfactory employment for Bahamians has always presented a serious challenge to succeeding governments and remains so today, particularly in the case of the younger generation whose aspirations are increasingly unsatisfied by the service roles of a tourist economy. The fundamental economic problem for the Bahamian administration is, therefore, to increase the quality and variety of local job opportunities, to make them more widely available among the 700 islands in the Bahamas chain and to finance the necessary ancillary social and physical infrastructure without reliance on the major fiscal tools available to most other nations.

Tourism — The mainstay of the Bahamian economy is the tourist sector which contributes approximately 77 per cent to the gross national product. About 80 per cent of the 1.3 million tourists who visit the Bahamas each year come from the U.S. and about 10 per cent from

Canada. The concentration of tourist facilities on New Providence and Grand Bahama Islands is a matter of some concern to the Government which, through its highly professional Tourist Board, is increasingly promoting the "family islands", the less well-known and developed islands in the chain.

There has been a recent levelling out of tourist arrivals, partly a result of increased competition from other tourist centres but also because of the increased cost of local goods and services — the islands depend almost entirely on imported food and consumer products. This, together with a tradition of wage comparison with Florida, has put heavy pressure on hotel profitability which, in turn, appears to be inhibiting the development of major new resort facilities.

The tourist sector will continue to be of vital importance to the Bahamas and will continue to provide a major market for a wide variety of imports but, in view of the prevailing cost factors, it appears unlikely that there will be much in the way of major new hotel and resort construction being undertaken in the near future.

Merchant banking — The second most important economic sector involves the extensive international financial community based largely in Nassau, on New Providence Island. In the last few years the traditional concentration of the sector on trusts and savings has been increasingly challenged for dominance by local Eurocurrency banking facilities, in large part resulting from the establishment of offshore branches by American banks. This, in turn, has created demands for extensive ancillary financial infrastructure including the beginnings of a modest but growing international merchant banking competence on the islands. It appears probable that merchant banking will increasingly dominate the sector and provide the base for a further expansion of the Bahamas international financial role.

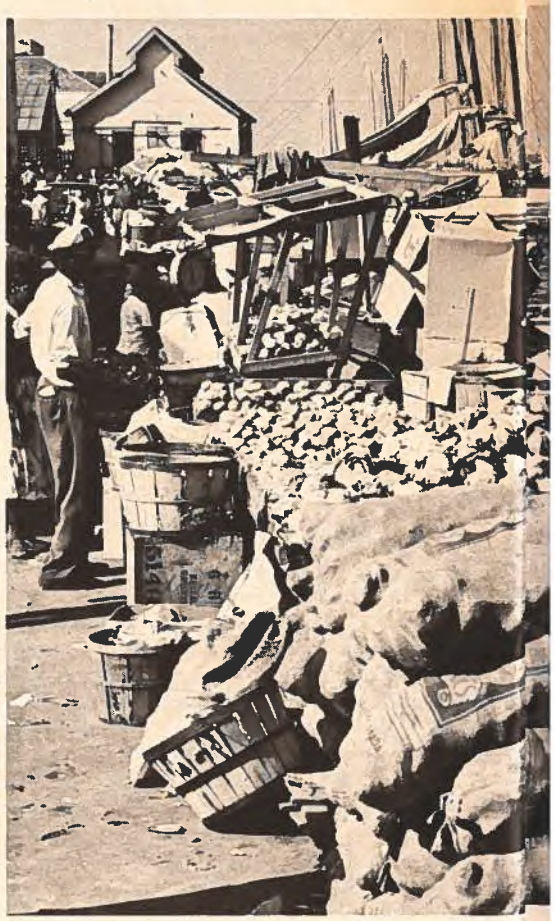
Some pre-independence uncertainties affecting the financial sector, including speculation as to whether the Bahamian Government might be forced to impose income taxes, and questions concerning regulations on expatriate employment, tended to prejudice some international confidence in the Bahamas as an investment base. It seems that for a time there was a diversion of at least some new investments to other tax havens such as the Cayman Islands, but the real effect on the Bahamas was, contrary to wide popular belief, only marginal. Of more serious potential consequence have been recent shifts in general investment patterns from money-related investments to commodities and real property. This trend has, if anything, benefited the Bahamas at the expense of competing tax havens since, with its extensive financial infrastructure, it is better able to adapt to changes in investment patterns.

Construction — Construction, once a major economic factor in the Bahamas, has been slow for the past few years, primarily because of apparent previous overbuilding but also, at least in part, because of the general economic uncertainties that have affected the whole of North America. With improved business confidence, the many attractions of life in the Bahamas will again spark substantial development and construction but the prospects now are for further consolidation and rationalization.

The major manufacturing facilities in the Bahamas are generally export-oriented. Bahamas Oil Refining Company can now handle 250,000 barrels of imported oil a day but, when current expansion is completed, capacity will be increased to 450,000 barrels a day. The refined products are exported to the U.S. and Canada. The Bahamas Cement Company realized export earnings of B$15,413,000 in 1972. Syntex Corporation, which manufactures hormones, exported B$28,428 worth of products in 1972. Bacardi rum exports continue to grow and, in 1972, reached a value of B$5,689,000.

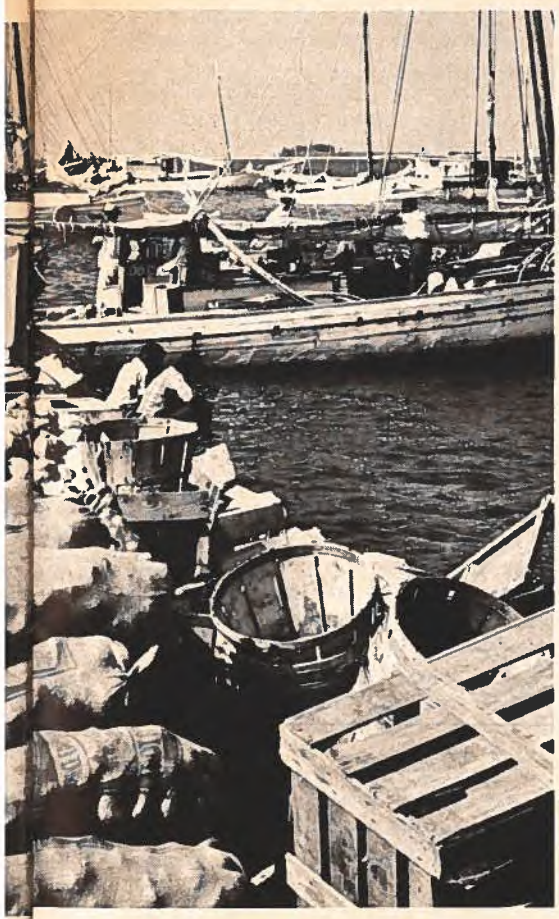
Agriculture — Recently, the Government has been giving a higher priority to self-sufficiency in agricultural production, which consists now mainly of vegetables and poultry. A number of studies are being done to determine what could be produced and where. Among the most important of these is one being undertaken with a $10 million U.S. Aid loan that involves a five-year pilot project for the development of livestock production on Andros Island. Another is a joint program by the Bahamian Government, the UNDP and FAO to evaluate available fisheries resources and to improve fishing techniques.

In general, economic prospects for the Bahamas are good and Canada should continue to provide a significant share of the country's import requirements. Proximity to the U.S., and the frequency of shipping between the islands and the U.S., means that our major competitors will continue to be U.S. companies. The Bahamas has a significant local population whose tastes and purchasing power are similar to those in North America. It is enhanced annually by well over one million visitors, 90 per cent of whom are North American.



Canadian suppliers enjoy a preferential margin on many products and it seems fairly certain that if your products sell in the U.S. they can also sell in the Bahamas. Our officers visit the Bahamas at least once every two months and are constantly on the lookout for opportunities for your products and services. But don't leave it all up to us. If you think the Bahamas may be of interest, get in touch with us. We are at your service. For further information write to the Commercial Secretary, Canadian High Commission, P.O. Box 1500, Kingston 10, Jamaica, or contact the Caribbean Division, Western Hemisphere Bureau, Department of Industry, Trade and Commerce, Ottawa K1A 0H5. □

The Nassau docks, where boats from the Out Islands unload their produce.



PRINCIPAL EXPORTS FROM CANADA TO BAHAMAS, 1973

	Cdn. $'000
Meat, fresh, chilled or frozen	273
Other meat and meat preparations	1,333
Fish, canned	116
Dairy produce, eggs and honey	481
Wheat flour	605
Cereal preparations	162
Vegetables & vegetable preparations	513
Sugar & sugar preparations	1,549
Other foods & materials for foods	451
Other fooder & feeds	189
Whisky	321
Tobacco	356
Yarn, thread, cordage, twine & rope	113
Metal fabricated basic products	136
Passenger automobiles & chassis	382
Ships, boats and parts	123
Pneumatic tires & tubes	370
Electric lighting & distribution equipment	190
Apparel & apparel accessories	751
Medicinal & pharmaceutical products	375
Printed matter	168
Containers & closures	347
Other personal and household goods	1,392
Other end products	678
Other equipment and tools	320
Total, incl. others	**13,894**

PRINCIPAL ITEMS BOUGHT BY BAHAMAS, 1972

	B$'000
Crude petroleum	230,995
Meat – bovine	8,323
Residual fuel oils (bunker)	17,995
Road motor vehicles	9,998
Meat – pork	2,396
Beer, ale, porter	3,417
Lumber, sawn, planed T & G	2,208
Finished structural parts	3,211
Metal containers for storage	4,163
Parts & accessories for machinery	3,676
Motor vehicle parts	2,235
Furniture & parts	3,269
Men's and boys' outerwear	2,859
Women's and infants' outerwear	3,431
Footwear, leather	2,361

Forest industry in eastern Caribbean

DESMOND HOBSON-GARCIA, Commercial Officer, Port-of-Spain

A good market exists in the Eastern Caribbean for expertise in forestry management, the marketing of products and consultancy services, and for sales in forest and yard machinery products such as chain saws, logging trucks, skidders, sawmills and other types of wood products machinery.

An important aspect of forestry which all governments in the area are concerned about is education. With the assistance of the United Nations Food and Agricultural Organization and the Canadian International Development Agency, forestry officials and workers are being trained to fill the growing demand for competent personnel. But there will be a shortage of trained people for some time to come. Studies in the best use of the forest and in reforestation are also being carried out in each country of the region.

Within the territories covered by the Port-of-Spain office the main areas for the development of a forestry industry are: Dominica (in the Windward Islands Group), Trinidad and Tobago, Guyana and Surinam. In these countries government-assisted programs and private sector participation are attempting to exploit forest lands. Because of the demand for a wide range of technology, expertise, equipment and capital from outside the region, Canadian suppliers should watch these developments closely and visit the countries in order to be able to offer the right type of machinery.

Each of these territories has a number of different species, and the industry must, therefore, catalogue each one in order to use it to the best advantage. Some of these are not well known overseas as sources of lumber, and research will have to be done to find out the best uses to be made of them.

Given the many varieties to be catalogued and the problems that could arise when logging starts, Canadian knowledge and expertise in forestry could help the industries in these territories. There is an increasing desire in the area for local inhabitants to take the initiative in such projects but so far there have been no opportunities to develop the skills demanded by a forestry industry. Consequently, joint ventures with foreign companies that would bring in and share their expertise might be looked at favourably.

DOMINICA

A survey of the forest resources undertaken in 1962 indicated that about 70 square miles of forested land contains 28 per cent of the saleable timber of the specie known as Gommier. The potential production was estimated at about 470 million board feet, adequate for about 40 years. A shipment of 50,000 board feet was made to Canada in 1964 for market testing, and reports show that a demand exists for this type of lumber in the manufacture of veneers. The market in this territory for equipment such as sawmills, loggers, chain saws, wire rope, etc., is good. But this is a country which requires financial assistance and interested Canadian companies may want to consider joint ventures.

In 1971, Britain gave assistance by assigning an officer for two years to study and investigate matters relating to land use, on behalf of the Dominican Government, with special reference to timber logging operations in areas of high rainfall, which seems to be the main problem in transporting logs.

SURINAM

Forestry in Surinam constitutes an important economic resource and provides about 4.5 per cent of the country's total export earnings. It also accounts for 3.5 per cent of the gross national product and affords employment for about 4 per cent of the total labour force. There is considerable potential for increasing the contribution of this sector and, with this in mind, the Government has obtained new aerial photography to assist in overall development and planning, and is building a new 200 kilometer access road to the western part of the country to open up new forest areas.

The largest and perhaps the best equipped company is Bruynzeel Surinam Houtmaatschappij N.V., a subsidiary of Bruynzeel N.V. in Holland. In early 1972, the Surinam Government negotiated a contract for a joint venture operation with Bruynzeel. The company's concession of five million hectares of timber land was due to expire in October, 1973, and an extension was requested. In addition, Weyerhauser is in a joint venture for fabricating chips and raw material for pulp and paper. In all, there are 30 saw mills producing an average of about 130,000 cubic metres of lumber annually.

The UNDP has approved a forestry feasibility study for which the Food and Agricultural Organization is the executing agency. The FAO has agreed to provide expertise in various fields, as well as equipment components for the project which will include woodworking machinery, vehicles, inventory equipment and other miscellaneous equipment.

TRINIDAD and TOBAGO

In Trinidad and Tobago, there are 354,409 acres of forest reserves, about 29 per cent of the total land surface. Approximately 240,000 acres of these reserves could produce much more than they do now and the Government plans to create employment by using modern equipment for logging, sawmilling and lumber processing.

Reports indicate that more than 2.3 million cubic feet of logs could be extracted annually from crown and private lands. This will create a demand for forest machinery products such as chain saws, logging trucks, skidders, wire rope, etc., to replace the farm tractors and animals being used. In fact, the whole industry needs modernizing to ensure economical production and continuity of supply.

GUYANA

Although 83 per cent of Guyana's total land area is forest, forestry contributes very little to the wealth of the country — just over 1 per cent of the GDP in 1970. Introduction of the chain saw and the mechanical skidder has increased output, but soil conditions in the forest areas range from a light white sand to heavy clays and the construction of graded serviceable roads is not easy. Commercial timber operations, therefore, still have to cope with a poor primary road system.

Surveys have shown that there are large forest reserves not yet being exploited, and tests on some species show they could be used for pulp. But about 15,000 acres annually would have to be cleared to keep any pulp mill supplied.

This, then, is the status of the forestry industry in this region. It is not yet very sophisticated but there are opportunities for Canadian companies with the required skills and capabilities. The staff of the Commercial Division of the Canadian High Commission, P.O. Box 1246, Port-of-Spain, Trinidad, W.I., will be pleased to help and look forward to receiving your inquiries, as well as welcoming you to these beautiful countries on your visits for an in-depth examination of the markets. □

AIESEC:
student organization with a difference

"Having Bonaparte Armah working here," said Dave English of Drum Travel Service in Scarborough, Ontario, "has been a bit of a break for us. He has worked out very well and definitely we would do it again."

Obviously, that is a hearty endorsement of Bonaparte Armah, but who is he and what would Drum Travel Service do again?

The first part of the question is easy but the second part will take a little longer. Bonaparte Armah is a university student from Ghana who worked this summer at the Scarborough travel agency, mainly taking care of its books. But he also prepared the firm's sales reports to the airlines and spent a fair amount of time just obtaining a general knowledge of the travel business.

So much for the first part of the question — Mr. Armah was here as part of a student exchange program that has been operating in this country for more than 15 years and has gained wide acceptance while receiving only a modest amount of publicity. The exchange is administered by l'Association Internationale des Etudiants en Sciences Economiques et Commerciales (International Association for Students of Economics and Commerce), known in every country as AIESEC (pronounced eye-sek). The English form of the full name is seldom used.

AIESEC was founded by seven European countries in 1948 and came to Canada in 1959. Today it assists students of the business administration and commerce faculties of more than 375 universities in over 50 countries. It is estimated that about 50,000 students have participated in the program since its inception. The exchange is reciprocal, with each AIESEC member country sending and receiving an equal number of student trainees. These days, much of the paperwork involved in getting the students to their destinations is handled by computers.

AIESEC Canada Inc. — The association is non-profit and non-political, managed at all levels by the students it helps. This year, the national president of AIESEC Canada Inc. is Tom Davies, who works out of a small office in Montreal. He was elected at the annual National Congress in February and is spending his one-year term working full time for the organization. AIESEC Canada Inc. has a vice-president and three regional directors, but Mr. Davies is the only full-time, salaried employee. Funds for the operation come from fees charged participating companies and government departments, as well as provincial and federal grants and private sector donations.

Mr. Davies told *Canada Commerce* that AIESEC aims to "bridge the communications gap between the leaders of today and those of tomorrow. We want to help business people understand one another's methods and problems. But our prime objective is to provide our members with an opportunity to complement their formal training so they'll be better prepared for their careers."

AIESEC exchanges, or traineeships as they are usually called, are coordinated by the International AIESEC Secretariat with headquarters in Brussels, Belgium. Traineeships may last from eight weeks to 18 months; the average is 10 to 12 weeks but this can be extended by mutual agreement between the company, the trainee and AIESEC. Five types of traineeship are recommended:

- participation in an organization's regular management development program;
- rotational training giving the student a chance to observe and work in several departments of an organization;
- work on a special project such as a report or market survey that takes advantage of the student's foreign education and background;
- concentration in a single department of the organization;
- any combination of the previous four types.

It is believed that the ideal traineeship combines observation of an organization's activities with work in day-to-day operations and it is suggested in AIESEC literature that "the experience offered should be flexible to meet the specific abilities and interests of the individual trainee . . ."

All trainees are university students who have had at least two courses in business or economics; many of them are graduate students. It has been found that many of the best students are

attracted to Canadian traineeships because of the relatively high wages paid here. As pointed out in AIESEC literature, it is obvious that "the higher the quality and stipend of the traineeship offered, the higher the quality of the student received. Experience has shown that companies offering relatively interesting or challenging jobs requiring more advanced education have been more than satisfied with their foreign trainees."

The exchange process — Each March, AIESEC delegates meet in an international congress, the primary prupose of which is to exchange the more than 5,000 traineeships usually offered each year.

The specifications of a company's offer are transferred to punched cards, as are the qualifications of all student applicants. The data are then transferred to magnetic tape and matched by computer. Following the matching process, nominations are examined by the National Committee of AIESEC Canada Inc. to ensure that the students nominated to train in Canada meet the requirements of companies here.

Next, the student application is forwarded to the company for consideration. If the company feels the student does not meet the conditions specified, the application may be rejected and AIESEC will attempt to find a more suitable candidate.

Trainees can be chosen to carry out a considerable variety of assignments and these include: marketing surveys, customer research, sales budgeting, financial analysis and forecasting, cost/benefit analysis, salary and benefit studies, job evaluations and descriptions, internal communications, social responsibility evaluations, customer services, time and motion studies, import and export operations, economics research, environmental studies and feasibility studies.

Over the years, dozens of Canadian private and public sector organizations have found that participation in the AIESEC program has been mutually beneficial. For example, this year the Investment Dealers' Association used a Japanese student to carry out a detailed study of the activities of U.S.-based securities firms in Canada. According to Andrew Kniewasser, president of the Association, this study will provide considerable background material for impending high-level discussions involving the Canadian and U.S. securities industries. Mr. Kniewasser told *Canada Commerce* that the traineeship of Takashi Fujii, a University of Tokyo student, has been "a very agreeable experience for all concerned . . . he's done a number of jobs very helpful to us and we've learned a great deal about what young Japanese are thinking these days."

For more information about AIESEC write to Tom Davies, National President, AIESEC Canada Inc., 1411 Crescent, Suite 407, Montreal, Quebec. The telephone number is (514) 288-6898. □

Trade Lines

Steel Mill for Iraq

A contract has been signed between the Iraqui Ministry of Industry and the French firm of Greusot-Loire for construction of the first stage of a steel mill that is expected to be producing 400,000 tons a year by 1977. Greusot-Loire is supplying machinery, equipment and technical services. International bids for the second stage of the project are being prepared — Beirut.

Turkish textile industry expands

The number of spindles used by Turkey's textile industry has doubled in the last two years. With this increase in facilities, 50 per cent of Turkey's cotton production can be processed domestically. A further increase in the number of spindles is expected in the next few years — Ankara.

Qatar steel mill

Two Japanese firms, KOBE Steel and Tokyo Boeki, have a contract with the Government of Qatar for construction of a steel mill that will produce 400,000 tons a year by 1977. Less than a quarter of this amount will be used locally, with the rest earmarked for export — Beirut.

Keban generators begin operating

The generators of the Keban Dam in Turkey, one of the largest in the world, have gone on stream. The Turkish Ministry of Energy and Natural Resources claims that the first and second units are generating a total of 310,000 kilowatts of electricity an hour. Power from the Keban Dam will be supplied to the western Anatolia region through Ankara. When full production capacity is reached, five billion kilowatts of energy a year will be generated — one fourth of Turkey's electrical energy requirements — Ankara.

Iran doubles development plan

C. J. ST. PIERRE,
Commercial Secretary, Iran

In the August 1973 edition of *Canada Commerce* the Canadian Embassy in Iran reported on the launching of Iran's Fifth Five Year Plan (March 1973 – March 1978). Total investments for the Plan period were then estimated at $32 billion. Two months later it was increased to $36 billion. Since then a series of events has contributed to quadruple the price of oil. Because Iran wants to develop its industry and infrastructure as rapidly as possible, most of the added oil revenues will be ploughed back into the economy through the revised Fifth Five Year Plan.

The new Fifth Plan announced early in August by the Iranian Government almost doubles planned investment which now totals U.S. $68.6 billion. Of this the public sector will account for 66 per cent ($45.3 billion) and the private sector for the remaining $23.3 billion. Table 1 shows the public sector allocations under the original Plan, the revised figures and the percentage increase.

When the Fifth Plan was approved in March 1973, Iran's oil revenues for 1974 were projected at more than $4 billion: the estimate now is for close to $20 billion. By the end of the Plan, in 1978, oil revenues are expected to contribute 48.7 per cent of the gross national product. Industries and mines would contribute 16.1 per cent, services 27.2 per cent and agriculture 8 per cent.

For the first time in Iran's history, the basic constraint in the development of the economy is not money: it lies in bottlenecks such as lack of trained man-

Oil derricks may be a fairly common sight in Iran, but not many visitors expect to encounter snow.

power, and capacity limitations in the infrastructure of roads, ports, railways, electric power and telecommunications. Another serious problem facing Iran is inflation because of the impact of large investments and a huge import bill.

Implications for Canada — Because of rising oil revenues, a large population (32 million) and internal political stability, Iran is probably the most interesting market in the Middle East for Canadian exporters. Canadians operating in this market will continue to face stiff competition from U.S., European and Japanese companies. Canadian exporters, therefore, should emphasize advance technology, product quality and well-established post-sale support facilities. You should also get an aggressive and competent representative, preferably Iranian.

There are fast-developing sectors of the Iranian economy that should attract special attention on the part of Canadians, since we are in an excellent position to supply the required services and equipment, particularly in the following areas.

Power — This is the sector that has received the largest percentage (352.8) increase under the revised Plan. Electric power generation is slated to rise at an average rate of 31 per cent a year. The Government has directed that, as much as possible, gas and oil should not be used for energy or heat, but to produce the thousands of derivatives that can be made from these two raw materials. Instead, Iran has decided to use nuclear energy. The Ministry of Energy is planning to have up to 23,000 megawatts of power from nuclear stations after 1990.

Telecommunications — There are now 500,000 telephones operating in the country. The Telecommunication Company of Iran proposes to have 2.5 million telephones operating by March 1978. This rapid development will require a great deal of equipment that local suppliers will not be able to provide. Iran is also planning to have its own private communications satellite to provide 12 television channels and 10,000 direct microwave communication lines. One of the uses of the satellite would be to beam educational television throughout the country.

Agriculture and Forestry — A decision was made recently by the Shah of Iran that all school children at the primary level would be entitled, starting in the fall of 1974, to a glass of milk every day. This will create a large demand for milk that can be met at the beginning only by imports of milk powder. The Ministry of Agriculture is also encouraging imports of dairy cattle. Farmers will receive special subsidies to help them import first class cattle from abroad.

Canadian exporters should note, however, that sales cannot be made only on a straight cash for goods basis. Canadians will have to invest in large receiving farms in Iran or agree to supply the necessary technical help to Iran.

Iran is mostly an arid country but the northern part bordering on the Caspian Sea benefits from enough precipitation to sustain a large forest. This wooded area can provide enough raw material for at least two pulp and paper mills. A Canadian consortium is already at work in the Province of Gilan building a kraft paper mill together with a lumber and plywood mill. Most of the equipment being used for this forestry complex comes from Canada. The same consortium has completed the first phase of studies for a second forestry complex near Sari, in the Caspian area.

Education — This area has received only a small increase under the revised Plan, and the emphasis has been changed to obtain the necessary technical people. A projected shortage of 400,000 in the technical labour force will be met by condensed courses, more job training in the army and, where necessary, by importing technicians from abroad. The necessary technical training needed will create a large demand for vocational training equipment used in these schools.

But these sectors are only some of the priorities established by the Iranian Government. With an anticipated growth rate for the gross national product of 26 per cent a year at constant prices during the next three years, it is evident that the country's infrastructure will have to expand rapidly. To give one example, attention is being given to a major program of expanded highways, ports and railways.

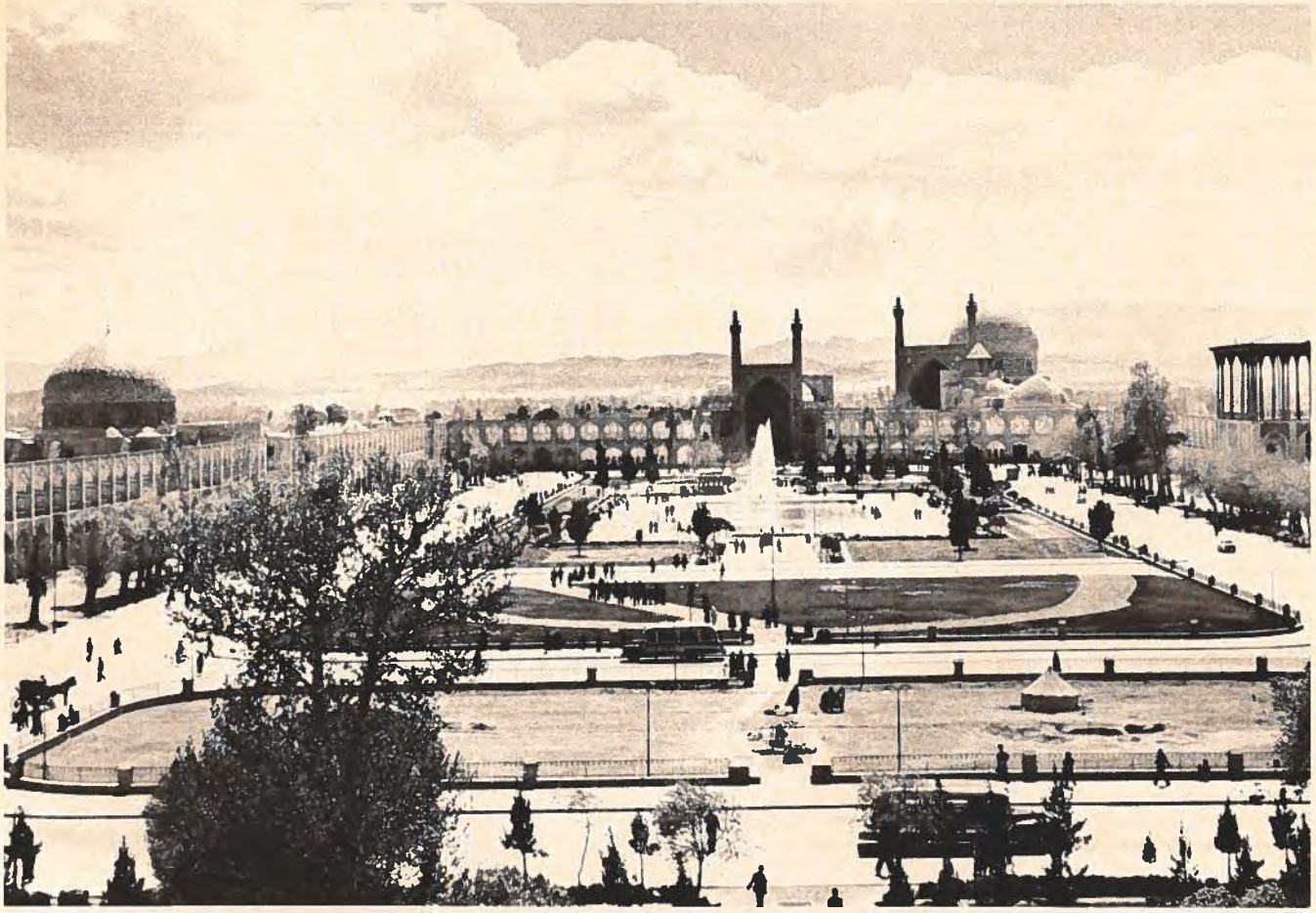
PUBLIC SECTOR ALLOCATIONS TO MARCH, 1978

	Original	Revised	% Increase
	U.S.$billions		
Agriculture	1.79	3.55	98
Water	1.57	2.37	51
Industry	2.67	5.22	95.6
Mines	.68	.92	34.8
Oil	1.92	5.00	156.1
Gas	.35	.75	112.5
Electricity	.78	3.55	352.8
Communications	2.62	6.00	128.2
Telecommunications	.53	1.35	153.9
Rural development	.53	.88	66.7
Urban development	.47	.66	42.2
Govt. buildings	1.34	4.74	251.6
Housing	1.33	3.40	155.5
Education	1.88	1.92	2.4
Culture	.07	.15	100
Tourism	.10	.16	57.1
Health	.35	.63	79.2
Welfare	.7	.13	80
Sports	.13	.22	66.7
Provincial development	–	.15	–
Public affairs	–	.47	–
Total	**19.24**	**42.20**	**119**

For more information on this important market write to: Commercial Counsellor, Canadian Embassy, P.O. Box 1610, Tehran, Iran, (Telex 2337). □

Three and a half billion dollars will be spent on efforts to modernize agriculture and increase food production. Shown here is the traditional way of winnowing grain.

The square in Isfahan, still a tranquil city in this fast-changing land of Iran. ▼



A matter of co-operation

Material in this article was obtained from a recent Canada Courier *article as well as from several publications of Environment Canada.*

Not long ago a lead article was published in this magazine's sister publication, *Canada Courier,* which began with a quote from a Science Council of Canada report: "Canadians have acquired an environmental conscience."

That may be a debatable point but certainly it is true that to some extent it has become irrelevant in Canada whether a company has an "environmental conscience" because, as *Canada Courier* went on to say, ". . . governments, at both federal and provincial levels, have passed new laws and activated old laws in attempts to clean up the environment and preserve resources."

The Federal Government went so far as to create a new department to safeguard and to advance its interests. Environment Canada began operations in 1971 and since then has become involved in control of air and water pollution, management of solid wastes, noise control, management of environmental crises, control of ecological impact of major developments and of federal government facilities across the country.

It is expected that by 1980 regulations and guidelines for almost 30 key industry sectors will have been laid down by the Federal Government — for the control of water pollution alone. It is hoped that most companies will be persuaded, rather than forced, to comply with the new standards (some of which are in effect already) but there will be plenty of legal machinery available to deal with reluctant ones.

It is true that the provinces have jurisdiction over natural resources lying within their boundaries, including air and water, but the Federal Government has powers to control certain aspects of pollution, through its regulation of fishing and navigation. The Federal Government also has authority to deal with pollution problems that spill over provincial and national boundaries but, as *Canada Courier* reported, "in practice it has worked co-operatively with the provinces in tackling these problems."

In 1971, the Clean Air Act was put on the books, to be administered by Environment Canada. Under the Act, uniform nation-wide air quality objectives are being established but the responsibility for carrying out these objectives will rest ultimately with the provinces. Under the Clean Air Act, the Federal Government is expected also to provide leadership in compiling source emission data, establishing national emission standards, controlling air pollution from all Federal Government operations and controlling composition of fuels produced here or imported. Already much has been accomplished.

The point is that all of this official activity means that a lot of business people and industrialists are going to have to hustle to cope with an increasing amount of legislation dealing with the environment. This is not news to anyone with more than a minimum level of awareness but it is worth repeating.

However, it is recognized that many businesses and industries will find it financially difficult to comply with the letter of the law and so quite a few types of assistance are available. Water pollution has received a lot of attention and assistance programs have been designed to encourage universities, research centres, consultants, industries and municipalities to carry out research and development on improved wastewater treatment processes.

Environment Canada administers the Co-operative Pollution Abatement Research program for the pulp and paper industry and the Water Resources Research Support Program for universities, as well as participating in cost-shared programs with industry to develop and demonstrate new water pollution abatement technology.

Other federal agencies sponsor a number of research and development programs. These include: the Industrial Research and Development Incentive Act and the Program for the Advance-

The Port of Vancouver: funnel to the Far East

JOHN SIMS, ITC Regional Office, Vancouver

Is a picture necessarily worth a thousand words? While a glance at almost any picture of Vancouver may well re-affirm the scenic grandeur bestowed on Canada's Pacific Coast many millions of years ago, it would do little to convey any sense of the dynamic upsurge of another kind that is mounting in the region — that of export activity in Canada's busiest port, the Port of Vancouver.

The decade from 1950 to 1960 saw fairly stable volumes of cargo handled every year, between 10 and 13 million tons, with the minor swings reflecting grain shipments to world markets under changing demand.

The really dramatic upsurge begins in the early sixties with the opening of new bulk handling facilities. Vancouver Wharves, handling potash, sulphur, ores, pulp and paper; Pacific Coast Terminals moving coal, sulphur and potash, and Neptune Terminals loading coal, potash, phosphate rock and methanol. By the end of the sixties, with all three of these new bulk handling facilities in operation, exports had more than doubled over 1960 levels.

In 1970, operations began at the Port of Vancouver's Outer Port at Roberts Bank, with bulk coal shipments to Japan.

ment of Industrial Technology, both administered by the Department of Industry, Trade and Commerce; the Industrial Research Assistance Program of the National Research Council; a research and development program provided for under Part V of the National Housing Act administered by Central Mortgage and Housing Corporation.

In addition, there is a CMHC loans program for municipalities; the Accelerated Capital Cost Allowance program of Environment Canada; and a program which exempts industries from the 12 per cent federal sales tax when pollution control equipment is purchased.

For more information write to: Environment Canada at Place Vincent Massey, Ottawa, Ontario K1A 0H3. □

PROGRESS IN THE PULP AND PAPER INDUSTRY

With this amount of money . . .

Between 1960-1972, Canada's pulp and paper industry spent $194.6 million on water pollution abatement. Of this, $64.5 million was for external treatment and $130.1 million was for in-plant improvements.

. . . this was accomplished

Suspended solids losses were reduced by 72 per cent per ton of product, dissolved solids and BOD by 33 per cent, and water use by 19 per cent. In absolute quantities, while production increased by some 46 per cent, suspended solids losses decreased by 59 per cent and dissolved solids and BOD discharged decreased by 2 per cent.

Loading 6,000 tons an hour — A man-made promontory owned by the National Harbours Board and operated by Westshore Terminals, Roberts Bank features 50 acres of reclaimed land, reinforced with steel and concrete, packed with sand and piled high with coal, brought from the interior of B.C. by unit trains of 100 cars, developed in 1969 for the purpose, and holding some 100 tons per car. The trains circle the terminal, as the cars, without uncoupling, unload the coal, then head back inland for more. Ships of 900 feet in length and up to 65 feet below the water-line can be loaded at 6,000 tons per hour at any stage of the tide. Dredging in the region is simple, and larger ships could be handled without difficulty as they come into operation. Roberts Bank now moves cargo of close to eight million tons a year.

The impact of the introduction of this new facility, coupled with mounting wheat exports, would be evident if a graph were examined. It would show a rapidly steepening line from '69/'70 to '70/'71. Over a 25-year period, total cargo tonnage through the Port has increased four-fold. This steadily rising volume has placed increasing demands on road, rail and waterborne transport bringing cargo to the Port, and on the facilities of the Port itself, faced with handling ships that reflect the trends common in most transportation methods today — fewer and bigger. While the number of ships arriving has dropped from 24,207 in 1962 to 17,276 in 1970 the tonnage of the ships themselves has increased by about one quarter, and the total tonnage of their cargoes from some 14 million tons in 1962 to more than 42 million tons last year.

The world's population is expected to double in the next 30 years and so, surely, we can expect increased demand for Canadian goods and services. This, coupled with the trend to larger ships — the "jumbo jets of the sea" — foretells greater future challenges for the Port of Vancouver. The harbour's depth and ease of dredging give both inner and outer ports the capability to handle the largest vessels being designed today.

Port of Vancouver cont'd.

Lynnterm — To keep up with the growth, new loading techniques and shore-based facilities will be needed. To handle general cargo, including forest products and steel, plus containers if required (though the container business accounts for only about 6 or 7 per cent of the tonnage moved today) the National Harbours Board has begun construction of Lynnterm, a $21 million deepsea terminal on the north shore of the Port — 86 acres with three ships' berths each 800 feet long and 50 feet deep at low water. Completion is expected in mid-1975.

Another 76 acres on the south shore is earmarked for Vanterm — a container terminal that will have three berths — two of 900 feet each for container ships and one of 750 feet for Lash and Ro/Ro shipping.

At the outer port of Roberts Bank at least four more sites of 50-55 acres each are to be added, each with a continuous-loop railway track for unit train operations, plus a turning basin for bulk carriers initially in the 150,000-ton range, with a potential future water depth of 90 feet at low water. The development will provide for fully integrated receiving storage and ship-loading facilities, complementing bulk cargo capabilities in the inner harbour. A further 200 acres of foreshore property will be available for secondary industries.

Growth is even more noticeable in the cruise-ship activity. In 1950, about 6,000 passengers on deep sea shipping visited Vancouver for fresh air and fresh scenery; estimates for 1974 are 73,000. New passenger facilities are being studied jointly by the National Harbours Board and the Canadian Pacific Railway. Under study are space and service requirements, commercial development of the pier area, traffic and transit arrangements, and the general beautification of the approaches. As Port Manager Fred Spoke (formerly Deputy Managing Director of the Port of Rotterdam) puts it: "Such a beautiful city should have an equally beautiful doorstep".

Naturally, such a large port is not without its share of problems; constraints imposed by environmental considera-

tions (environmental studies are conducted before any new planning begins) — problems with feeder transport — the occasional labour dispute — perhaps breakdown of equipment. The occasional labour dispute? Perhaps it may surprise those who see labour unions as the traditional villains of the piece to learn that last year the longshoremen in the Port of Vancouver, who earn some $53 million a year, did not strike once.

Close liaison — When problems like these arise, inconvenience for overseas shippers and buyers often can be minimized through the close liaison between the National Harbours Board (which operated the Port) and the Regional Office of the Department of Industry, Trade and Commerce. This liaison leads to prompt relaying of information to all overseas contacts.

The Department of Industry, Trade and Commerce helps in other ways too — whenever a new facility is to come on stream the Regional Office, through the Trade Commissioner Service and other overseas contacts, sees to it that potential users are alerted. Often the Trade Commissioners will arrange for touring representatives of the Port to meet influential shippers in their host countries. Incoming buyers and other influential visitors are often taken on a tour of the Port and introduced to local exporters of freight handling companies.

All are working to see that full advantage is taken of this major outlet for Canada's commodities — a fast-flowing funnel to the furnaces, fridges, forests and fields of the Far East. □

MANAGED INNOVATION CREATES SUCCESS

F.D. BARRETT

Dr. Barrett, president of Management Concepts Limited in Scarborough, Ontario, teaches creative thinking to research and development scientists and marketing and production executives in both Canada and the United States. His seminars are offered both in-house and publicly in Halifax, Montreal, New York, Boston, Toronto, Winnipeg, Calgary and Vancouver. He was formerly a teacher of management at M.I.T., McGill, Queen's, Banff, and York. He holds a doctorate in Industrial Economics from M.I.T.

Innovation, like salvation, was once thought to be largely a matter of prayer and inspiration. However, today we know that innovation not only should be but can be managed.

By managed innovation, we mean innovation that is made to happen. We mean innovation that is purposefully and consciously directed toward carefully thought out innovation goals.

The steps in managing innovation are: (1) search the environment for the new markets being produced by change; (2) single out a market opportunity thus revealed; (3) set an objective, with a target date for what kind of innovation is needed; (4) plan a strategy and a program for inventing and developing the new service or product (increasingly today, a new service); (5) organize appropriate innovation groups and think tanks to work on the innovation program, select and appoint members and leaders; (6) choose appropriate creativity methods to use, such as bionics, synectics, morphology or brainstorming; (7) go to it; (8) periodically review and revise strategy, organization and methods in order to stimulate progress toward successful attainment of the objective.

Management by Objectives — MBO is an excellent vehicle for getting creative, innovative approaches working. Creativity comes into MBO at several stages.

- Stage one is the creative discovery of opportunities and challenges that give rise to the objective. Seeing a new market, a new need, a use for some new technical invention, are all acts of creative imagination.
- Stage two is the creation of new missions for the organization. In a world of change, the institution which survives is the one capable of generating new missions.
- Stage three is imaginative construction of specific new objectives to respond to the new opportunities and to translate the new missions into operational reality.
- Stage four is the invention of new products and services to meet the demands of the sophisticated, affluent, leisure-oriented, socially conscious, mobile, communication, change-oriented society.
- Stage five is unblinkered planning that uses creative imagination to expand outward the range of alternative courses of action to be considered.
- Stage six is the invention and construction of new types of organizational arrangements suitable to space-age man, in a post-industrial, faster paced, innovative society.
- Stage seven is the devising and constructing of management information systems that service the high-speed innovative, modern MBO enterprise.

OST system — The growth goals of Texas Instruments Corporation are to double sales about every five years. To achieve this, the company must keep management's attention rivetted on long-range issues. But how? How can a company prevent the dissipation of its future-oriented resources? How can it prevent its executives from simply "playing out the string" of previous innovations? How can it focus on long-range issues while still solving the urgent and pressing problems of day-to-day survival?

One way would be to give the strategic activities to one cadre of executives and operational activities to

another. Texas Instrument's president Patrick Haggarty decided not to do this. Instead he instituted an Objectives, Strategy, Tactics System. The "OST" system entangles managers in both strategy and operations.

Paradoxically, the OST system entails two management hierarchies — one, an operational hierarchy; the other, an innovation hierarchy. There may be two hierarchies, but there is only one T.I. So key executives hold responsibilities in both hierarchies!

At T.I. today-oriented and tomorrow-oriented management tasks are distributed among the very same cadre of executives. So no executive is tempted to emphasize the present at the expense of the future. Each executive is, in fact, advised annually about the relative priority he must give to strategy and to operations. Thus, through the OST vehicle, T.I. has actually institutionalized corporate self-renewal!

The diffusion process — This is the phrase used by Everett M. Rogers to describe the process of how an individual or organization adopts a new idea or practice.

Whether you are introducing Management by Objectives, Program Planning and Budgeting, or Think Tanks, or any new idea or practice into your organization you have to take into account the diffusion process. Ignore it and that's the end of your dream of successful innovation.

The process has five steps: 1. Awareness: people learn of the idea or practice but have no knowledge of it. 2. Interest: people get interested, seek information, ponder the merits of the idea. 3. Evaluation: people size it up more, decide to try it. 4. Trial: people try it out on a small scale to test its actual feasibility or desirability. 5. Adoption: if it worked in the trial, it's adopted on a bigger scale.

Management Concepts Limited has found that Rogers' model is accurately descriptive of how people react to MBO. We provide for steps 1, 2 and 3 to occur by organizing two-day concept clarification and implementation seminars for all managers prior to any action. No manager is ever asked to try MBO without having had a good opportunity to engage in awareness heightening, interest examination and evaluation through criticism.

For further details on Everett M. Rogers' model get hold of his book, *Diffusion of Innovations, 1962,* The Free Press of Glencoe.

Think tanks — The ways of organizing think tanks and the methods for conducting them are fairly numerous and various. But they all boil down to people getting together to think searchingly, critically and creatively about their business.

The first step in setting up a think tank is selecting the people. As a general rule of thumb, between five and eight people should be involved. Fewer than five provides for too little variety in viewpoint. More than eight reduces participation and, worse, causes the group to splinter into two sub-groups. The group can be constituted from a leader and his immediate team, be it president and vice-presidents or supervisor and employees. Or, depending on the subject, it can be a mixed group representing multiple perspectives, e.g. a group composed of a plant manager, a housewife, a machinist, a nutritionist, and an accountant to work on plant cafeteria programs.

A second step is finding a place to meet. An ordinary office or conference room is often good enough. But in the interest of loosening up the grey cells, think tanks have met in such off-beat surroundings as a swimming pool in Montreal, a cruiser in Toronto Harbour, and the bottom of an abandoned mine shaft in British Columbia. A serious case can be made for the beneficial effect of a strange, relaxing or different physical environment for promoting unusual and divergent thoughts.

A third requirement of a successful think tank is that it express and state as clearly as possible what its goal is or what specific problem it is going to try to solve.

The creative work in a think tank takes place when its members are in face-to-face contact, interacting and exchanging views, cross-stimulating and cross-fertilizing one another. Therefore, a fourth requirement of effective think-tanking is that the members come together often enough to give the idea's

pollinating, germinating and flowering processes a good chance.

Invent the future — Innovators think today in order to produce a new tomorrow. The name of their game is "inventing the future". It is a game played along a time axis. The past is given fairly short shrift. The future is what commands attention. Nothing can be done about the past. But the future is not yet created. There is still a chance to mold it and shape it. It can, to a degree, be "invented" and made to be more what we would like.

Think tankers are interested in trends which will create new problems and opportunities in tomorrow's world. In some cases, tomorrow may be 20 years or more hence. For example: Xerox in 1964 formulated its corporate goals for 1984. The New York Times has a special top executive group which meets to probe the very long-range future of the newspaper business. Air Canada has a think tank working on the question of how three-dimensional coloured videophone communication will affect the future of air travel.

A life insurance agency manager and his agents, in 1968, used the "scenario" technique imagining what the ideal agency could and should look like in 1978 with respect to products, services, organization, staff, etc. In the scenario technique, the innovator tries to visualize a likely or desirable state of affairs in the world of tomorrow.

Free association — Creativity is a mental process, and it's associative. Things apparently get grouped in our minds and our memories.

We store in our mind various families of association, say: music, art, theatre, beauty. Or: car, automobile, battery, gasoline. These linkings are ideas, but they're at a pretty concrete level. They come in through sensation and perception and then they are stored. What we are dealing with is some linkage in the nervous system; neuro-connections in the brain.

If I give you the thought "pencil" and you come up with "paper", this is routine association. Pencil and paper are grouped together in the mind because that's the way they're grouped together in reality. But supposing we ask the brain to establish associations across families: this is a real difficulty, because we will be on the road to what we call "a new idea." If I take the word "theatre" and the word "car", I've got a drive-in theatre.

This is free association. Use it to get new ideas.

Think laterally — Edward DeBono is a British physician and psychologist. He is also an escape artist. Dr. DeBono has been helping people to escape from tired, unproductive ideas.

He claims old ideas dominate our perception of problems and hinder our creativity. Dr. DeBono has studied the mind as a self-organizing system. He perceives the mind as engaged in collecting data. The mind then needs to invent "concepts" to organize the data.

For instance, the concept "centralization" may be the dominating concept by which one individual's mind structures ideas, hypotheses, facts, and speculations dealing with the way people organize to achieve objectives. Now, suppose the "state of the art" in organization development shifts away from "centralization" to a new concept, namely "participation".

The mind of an old-fashioned manager may be quite unable to assimilate this change. He may be unable to back up and throw away his previous pattern. Thus, his perception of possible new organizational data is limited.

Dr. DeBono has written a book, *Lateral Thinking for Management*, that explains how to escape from such imprisoning concepts. His advice is: "Don't try to incrementally change a dominant pattern. Instead, 'snap over' to an entirely new pattern".

DeBono suggests that we use creativity techniques, throw a random word (unrelated concept) into play, e.g., juxtapose "grapefruit" with "organization." This may suggest a three-dimensional organization (a three-dimensional, matrix organization); or a radial organization (suggested by the cross-section of a grapefruit) organized around a central authority; or an organization that is small on top (top management), wide in the middle management, but which narrows out again at the bottom.

If random words don't grab you, why not try, for instance, reversal (an organization in which top management obeys the workers?); or analogy (a detailed exploration of the organization of an ant hill?); or even fractionation (don't talk about "organization"; instead talk about "communications," "planning," etc.).

If these novel ideas strike you as unsatisfactory or impossible, take them as "intermediate impossible". Use them as stepping stones to new ideas.

DeBono calls his techniques "lateral" (non-critical) thinking, which he contrasts with "vertical" thinking. Vertical thinking is logical: it uses "no" and "impossible" to negate bad ideas.

Trust serendipity — Serendipity refers to one of the most characteristic features of the creative process. It means making unexpected discoveries.

For example, in the medical science field Fleming discovered the effects of pencillin quite accidentally. Blown in from an open window, it killed the bacteria in a saucer which contained a strain which Fleming was investigating.

The physician Laennec, searching for a way to hear the sounds of the heart, got his answer quite by accident when he saw two boys, one of whom was hitting one end of a wooden seesaw with a stone while the other listened with his ear on the other end of the board. The notion of the stethoscope leaped to Laennec's mind.

George Westinghouse discovered the idea of the airbrake when he accidentally discovered that compressed air power was being used by Swiss engineers in tunnel building. The discovery was made while he was casually flipping through a journal.

Scotch-tape was originally viewed as a product to be sold to libraries for mending torn pages in books. Its other multitudinous uses with which we are familiar today were discovered quite by accident and were a source of unanticipated and unexpected profits to 3-M.

Does this all mean that discovery is just a matter of simple luck? Absolutely not. Serendipity happens only to people who are searching, never to people who are not curious or inquiring or who are not engaged in a hard search for opportunities, possibilities, answers or inventions. As Poincare, the distinguished and creative French mathematician put it: in discovery "chance favours the prepared mind".

Serendipity is important to the inventive businessman or creative public administrator, as well as to the scientist. The knowledge that serendipity can happen, and indeed will happen, is an encouragement and a spur to ceaseless search.

Believe in the impossible — On the spectrum of human attitude toward change, there are two extreme groups. Those who believe anything is possible and those who believe nothing is possible. One ebullient Toronto innovator likes to say: "Anyone who believes the sky is the limit has no imagination." Those who cling to the other pole are, however, the more numerous. Concerning these conservatives, Nancy T. Gamarra, who did a study on negative comments towards visionary innovations before they happened, reports the following findings:

1. In 1902, ***Harper's Weekly*** stated: "The actual building of roads devoted to motor cars is not for the near future, in spite of many rumours to that effect".

2. Henry Ford said that the Edison Company once offered him a job on condition he would "give up my gas engine and devote myself to something really useful".

3. Admiral William Leahy told President Truman in 1945: "The (atomic) bomb will never go off, and I speak as an expert on explosives".

4. In 1945, Vannevar Bush told the U.S. Senate: "A 3,000 mile high-angle rocket is impossible for many years".

5. The distinguished physicist, Millikan, said in 1930: "There is no appreciable energy available to man through atomic disintegration".

Miss Gamarra's findings are contained in a research article she wrote in April 1967, "Erroneous Predictions and Negative Comments concerning Exploration, Territorial Expansion, Scientific and Technological Development", published by the Legislative Reference Service of the U.S. Library of Congress.

Take time to think — An editorial by Norman Cousins in the ***Saturday Review*** said, in part, "We have everything we need, except the most important thing of all — time to think, and the habit of thought.

"We have somehow managed to persuade ourselves that we are too busy to think, too busy to read, too busy to look back, too busy to look ahead . . ."

Mr. Cousins was writing of the dangers facing humankind and civilization and the lack of thought being given to them by the "movers and shakers", in a society which places low value on thought compared with action and accumulation.

He could equally well have been writing of the managers of our business enterprises and government departments. How much time do managers spend on thinking about the goals, the plans, the dangers and the future of the organization? How much time *should* they spend on these bigger matters?

Hold periodical management retreats or think-tanks in some location distant from the buzzing busyness of the office. You'll produce plenty of new thoughts and ideas.

Ape the monkey — Monkeys are the subject of an article which appeared way back in February 1964 in the periodical *Science*. The title is: "The Social Life of Japanese Monkeys".

To some managers who believe most human beings are too stupid to think creatively, the realization that even monkeys can invent may come as a surprise.

For example, a young female monkey, part of a tribe of wild monkeys on Kojima Island in Japan, invented the trick of washing sweet potatoes in sea water to clean off the dirt. The trick eventually spread through the whole tribe.

Another monkey, later on, adopted the idea of holding the potato on a tray in order to do the job better. This ingenious modification was picked up by other monkeys and spread through the tribe. Do monkeys resist new ideas? The researchers found that older monkeys take more slowly to new ideas than younger monkeys do. Still, in the long run, it appears that good ideas do eventually become accepted by the whole tribe, old and young alike.

If monkeys are capable of invention

and innovation, maybe most humans are, too, not merely a few. Does your company believe people are as smart as monkeys ?

Look for ideas — Ideas come only to people who look for them. Idea seekers search hard because of the high rewards ideas afford. To them good ideas are the closest thing to magic that a hard and real world contains.

Good new ideas may mean improved performance or new customers, or lower costs, or better organization, or improved communication.

Idea seekers subscribe to the "work smarter, not harder" doctrine. Hard work can move us yards ahead; but smart ideas lie everywhere around him, sometimes staring him right in the face. They wait there patiently to be picked up.

America was waiting to be discovered in 1492. But it took some looking. Penicillin waited patiently for millions of years for Fleming to find it.

The human "search and discover process" is at the source of ideas. What can we do to increase the number and value of the ideas we can unearth ? Discovery means opening one's eyes. It means taking the blinkers off. It means really scrutinizing what we see. The Bible speaks of people "with eyes who will not see and ears who will not hear." Effort has to be exercised.

We must tune our minds to a high level of acuity. Many methods are available today to do just that. These methods are think tanks, MBO, bio-feedback, meditation, brainstorming, bionics, synectics and plain curiosity-driven conversation. Many progressive organizations encourage the use of such mind-expanding activities. Some examples include Canada Starch, Canvin, Shell Oil, I.B.M. and Crown Life.

Think divergently — Some months ago I splashed white paint on a pink patio tile and didn't wipe it off properly. A whitish stain was left. Later a friend and I happened to look at the stain.

Off I immediately went into a beautiful exhibition of unproductive thinking. Said I: "Maybe a brush and turpentine and hard scrubbing would work." "Maybe I have to use something stronger than turpentine." "Perhaps a wire brush would do it."

None of these answers sounded very good. But there I was, in full-flight, rhetorically parading out a full litany of tired solutions. Then my friend quietly remarked:"Why don't you just turn the tile over ?"

What had been his mental approach ? He started from the problem and diverged: I had converged. He went out from it: I had sailed into it. His diverging enabled him to see it from a wider point of view.

His is the kind of thinking necessary to find fresh solutions. It is the kind of thinking that seems, surprisingly often, to produce the easiest, the best, and the most successful answers.

The tile example deals with a triviality. The tile could have been replaced for about a dollar. However, this same convergent-versus-divergent difference applies just as well to bigger things.

For example, a small Canadian company used brainstorming to search for a divergent approach to cost reduction problems. It managed to reduce a $20,000 a-year operating loss to $6,000, in one fell swoop. The divergent solution consisted of replacing a $14,000 a year payroll for guards with a one-shot expenditure of $4,000 on modern fencing and alarms.

Convergent thinking is orderly, logical, controlled, straight to the point. But divergent thinking wanders around the problem, erratically looking for a new approach. As the English writer on creative thinking, DeBono, puts it, divergent thinking is "lateral" rather than "vertical". It is "zig-zag" rather than straight. It examines. It turns over. It questions. It prods.

In convergent thinking, the solution is always what is expected. In divergent thinking it never is. The divergent solution is a surprise, a genuine discovery.

Following the "logic" of convergent thinking, an American city put toll booths at both ends of a bridge going in and out of the city. But with increasing traffic flow, huge jams were created at the toll booths.

Then some divergent thinker realized that most cars going in would go out. The solution was: double the toll, but collect it going one way only.

When a person has a problem, the normal tendency is to dig right into it and work out the logical answer. In the process, without half thinking about it, familiar, experienced solutions are trotted out and quickly examined to see if any fit the situation. Somethimes this approach works. Often it doesn't. We each forget that the orthodox answers may be weak one to start with.

Such convergent thinking entails a boxing in and a focusing of energy directly into the problem. We are so used to it that we regard it simply as "thinking" or perhaps "problem solving". We assume that it is the only kind of thinking there is.

Both convergent and divergent thought processes have their uses. The trouble is we are inclined to use only the one kind, the convergent. But divergent thinking is there to be used too. Particularly if we have an appetite for creativity.

Discover invention — The greatest discoveries of recent years may turn out not to be jumbo jets, lasers, pills and other such technical marvels. Recent new discoveries concerning the inventive process may turn out to be vastly more important in the long run. A few of these discoveries are:

- Inventiveness is not the exclusive province of the genius. Everyone has a certain amount of this ability and potential.
- Most of our established institutions, whether educational, business, family or community, operate to restrain and block the independent, unconventional, original and creative thought and action that is the source of inventiveness.
- It is possible to deliberately develop organizations which are inventive and innovative, and which release the creative abilities of their members.
- Those who succeed in being most inventive and innovative are independent, self-sufficient spirits who balk at conformity.
- We know that inventiveness is the mental process of building new forms, patterns and wholes by either combining things which have not been combined together before, or of re-arranging existing elements and relationships.
- We know that new patterns (new inventions) often produce a leap upward rather than a small percentage improvement.

• We know that the power of the inventions emerges from the pattern rather than the parts.

• Inventiveness is not primarily the product of reason, logic or judgment. It is the product of perception and imagination. People high on logical, analytical and critical abilities may be low on inventiveness and innovativeness and vice-versa.

• It is possible to teach people how to invent and innovate.

For managers, the three main action implications that stem from these findings are: he can learn how to be more inventive and innovative; he can provide his subordinates with training in these processes; and he can use administrative approaches which will reduce organizational blocks to invention and innovation and which will stimulate, reward and evoke inventiveness in his staff.

Transcendental meditation — Meditation is a technique for the development of awareness and the cultivation of creative intelligence. It is a relatively new import from the East. The technique takes about four hours to learn. It is then employed 20 minutes every morning and evening. The International Meditation Society, which sponsors it, says about 200,000 westerners now use the technique.

The results reported by users of the technique (which they call T.M. for short) include relaxation, less fatigue, clearer thinking and more zest.

Medical studies in the U.S. have found that during T.M. oxygen consumption decreases. Heart rate, blood pressure and metabolism also decrease. Electrical skin resistance increases up to five times which signifies a great reduction in emotional tension.

Dr. R.K. Wallace, at the University of California, Los Angeles, has published a research report on the effects of T.M. The title of his 80-page monograph is *The Physiological Effects of Transcendental Meditation.* It is published by the Students International Meditation Society, 1015 Gayley Avenue, Los Angeles, California, 90024.

T.M. will be a technique regularly taught in 50 per cent of North American executive development programs within 10 years. This is inevitable because of the increasing tension of executive work.

Do more dreaming — "Executives should learn to dream if they want to be successful". This is a conclusion Management Concepts Limited has arrived at in six years investigation into executive creativity.

The highest-performing company president we know is a professed dreamer. His technique consists of sitting for hours in his armchair sipping beer and listening to music. His mind roves imaginatively over the whole field of business strategy and tactics. Some of his thoughts go so far he won't dare confess them. But the results are business actions that drive profits up.

David McLelland, the Harvard psychologist who has done so much work on high achievers, has found that they all have one common trait: they fantasize and dream incessantly about how to achieve their goals.

How about real dreaming? The kind we do when we're deep in sleep. The fact is many great scientific discoveries (Kekule and the Benzene ring) and technological innovations (Watt's invention for making lead shot) came during dreams.

We all know that when we're baffled by a problem it is good advice to "sleep on it." An answer often comes as we wake in the morning. Elias Howe got his solution to the sewing machine in a dream. He dreamed he had been captured by savages. He was brought to their king. The king told him either to invent the machine fast or die by the spear. In the dream Howe saw spears with eye-shaped holes near their tips. Then he woke. He suddenly realized that his needles needed holes close to the tips too.

Everybody dreams every night, several different dreams in fact. But few people remember their dreams. Yet all we have to do if we want to remember our dreams is go to bed with that intention. Try this: Go to bed with the intention to dream about a particular problem. You may dream up the solution as well. With a little fairly easy practice we can get control over our dream processes. After all, Robert Louis Stevenson actually created all his plots by exactly this method of dream control. Why not

write your scenarios for management action this way too?

Brainstorm — Brainstorming has come to have two very different meanings. It has come to be used to refer to any and all meetings in which people come together to bat out ideas. But originally it meant a special creativity technique, based on a definite principle and following definite rules, developed by Alex Osborne, about 20 years ago.

In ordinary bull-sessions, Osborne noticed that ideas put forth in group discussion are instantly subjected to judgment as to their merits, feasibility, economics, etc. As a result few ideas get put forward and most of the time is spent not on producing ideas but on evaluating them.

Furthermore, anticipation of judgment puts a damper on the free outpouring of ideas. Judgment acts as a brake on imagination.

In order to release the free flow of ideas, the Osborne brainstorming technique uses the principle of suspended judgment. First the group holds an idea-generating session in which all judgment is suspended. The rule is no criticism of ideas. Instead, the group tries to produce as many ideas as possible and as wild as possible. This sometimes can result in a small group of half a dozen people throwing out as many as a hundred ideas in twenty minutes.

Judgment and evaluation still play an important and definite part in Osborne's brainstorming. They come into play deliberately in a later idea-evaluation session.

Morphology — This has been one of the best-liked creativity techniques taught in our Management Concepts Limited seminars. The technique, and the term, was invented by Professor Fritz Zwicky of the California Institute of Technology. He holds 16 patents in jet-propulsion technology on inventions arrived at by using the morphological method.

In the 25 years since Zwicky invented morphology it has been put to use in industries as varied as textiles and photography.

Morphology can be used just as well for inventing a new personnel procedure, accounting system or advertising program as for inventing a physical product.

Morphology consists of four steps: 1. determining the objective, 2. identifying the dimensions of design in the object or system under consideration, 3. drawing a three-dimensional grid, 4. searching the grid to discover the new invention sought for.

Professor Zwicky's book on morphology was first published in English (original in German) in 1969 by MacMillan and is called *Discovery, Invention, Research Through the Morphological Approach.*

His treatment of creativity and morphology is more than technical. It is deeply idealistic and humanistic. He is convinced that the human race has a deep need for new methods of thought which will enable us to fulfill our potentialities and express our innate, human ability for creation. □

Equinalya:

Tale of a corporate mare's nest

HARI ANAND,

President, Information Science Industries, Ottawa

In his more serious moments, Mr. Anand is president of a successful Canadian consulting/computer firm specializing in hospital administration systems.

The year was 1982. Elwin Lagee stepped out of the warmth of the Equiplaza into the chill of the late October afternoon. He paused, gazed at the cloud-laden sky, and began to plan the article on which he would work long into the night. The doorman approached. "Call you a cab, sir?" he questioned. Elwin replied, "Yes, to the airport." Elwin stepped into the thick-carpeted interior. As the steady rhythm of horses' hooves on pavement rang through the streets, he began to plan his article.

The tip-off to the Equinalya article came from a chance meeting between Elwin and a friend from university. Elwin had been covering a major international trade show for *Canada Commerce*, when he met his friend who was working as assistant to Pierre Merton, the vice-president of marketing and public relations for Equinalya. One thing led to another and now, after many months of negotiation, he, Elwin Lagee, had received permission to write the first exclusive story given to the media by Equinalya. True, much had been said in the press about Equinalya, but most of it was hearsay and conjecture. And few reporters had even had a glimpse of Howard Mewse, the secretive but forceful and dynamic president, much less an exclusive interview. That was, until today.

The horses trotted down the tree-lined parkway that, many years ago, had been known as Highway 401. In the distance Elwin could hear the roar of the jets at the airport. He glanced through his notes and began to outline in his mind the history of Equinalya.

Oil crisis child — It all began in the middle seventies, following the oil crisis. Inflation and the oil shortage led Howard

Mewse and a few close associates to make a proposition to the provincial government. Detailed cost-benefit analyses were produced. Long-range ecological forecasts were prepared. Economists presented briefs on the effects to the economy and employment. The proposition: to convert Metro Toronto back to the horse and buggy era. Mewse would establish the private company that would do the job, providing the company had exclusive rights.

At the time the nation was shocked. Mewse was the subject of ridicule. The provincial government was accused of patronage and dictatorship. But, as time passed, the early trials of the project, in certain small suburbs, proved beyond a doubt that the idea would work, was practical and, what's more, was extremely popular with the residents. Legislation was passed — and Equinalya had begun.

The early years were hectic. Mewse and his group were faced with the task of the phased replacing of some 800,000 motor vehicles with horses. In quantitative terms that meant over a million and a half horses and of course the 800,000 assorted wagons. But that part was relatively simple. Finding ways to support such a transportation system almost led to the downfall of Equinalya. Feed and waste volumes were enormous. But Howard Mewse drove himself and his employees for years — working what seemed like 20 hours a day, 20 days a week. They succeeded, and today, in 1982, the Equinalya empire was possibly the largest Canadian corporation, only surpassed by the railways.

The Equempire — Elwin glanced through his notes and counted. Ten, eleven, twelve: Equinalya was the holding company for twelve subsidiaries. He flipped through his papers to the report Pierre Merton had given him. Combining all these companies, the Equinalya empire employed more than 40,000 Canadians and had annual gross sales in excess of $2 billion. Larger than General Motors, Pierre had told him!

Elwin began to browse through his notes on the corporate structure. There was Equinalya itself — the parent company that controlled the empire through a computerized administration system. There was the research and development group that over the years had come to the rescue with new methods — methods without which Equinalya would have failed. He read on — Equiwagon, the manufacturing arm where about 50,000 new wagons of all sizes, shapes and prices were produced annually. There was Equipower, the largest animal husbandry operation the world had ever known. Spread over 200,000 acres for all its branches, Equipower produced more than 100,000 trained horses annually. And it employed 5,000 Canadians to do the job. One example of where the R&D team came to the rescue was its success in producing a new short gestation period breed, the Equimare.

Glancing out of the window of the cab, Elwin could see the outline of the Airport Equistable — the largest of hundreds operating in the metro area. A neon sign flashed in the distance: "Airport Equistable: Rent-a-Horse, Parking, Feed, Grooming". He went back to his reading. Equifeed, the largest subsidiary, provided feed for the entire operation and operated an empire of about 4,000 equifarms whose total acreage was more than half of what the province's total farm land had been 10 years ago. These equifarms employed more than 30,000 workers and delivered to the metro area more than 2,000 trailer trucks of feed every day, 365 days a year. They also provided by-products to the Equimart grocery chain. This subsidiary alone was responsible for close to half the entire annual gross sales for Equinalya.

Equinure — And there was Equinure, a link in the chain that came close to causing a collapse of the fledgling empire in the late seventies. A massive organization, Equinure shipped 100 railroad carloads of waste a day to the various equifarms and distribution points across the nation. Fertilizer for over a million acres of farmland — all collected and shipped from one small metro area. He glanced at the newsclipping file Pierre Merton had given him on the strike that had taken place just three years ago. Although Equinure was highly automated and extremely efficient, the 1,000 employees were still able by their strike action during the heat-wave of July 1979 to cause a declared national emergency, not to mention an international incident.

By the end of the tenth day of the strike, the accumulated 80,000 tons of waste, aggravated by the continual 90 degree temperature, forced the government to declare a national emergency. While debate was going on as to exactly what action should be taken, the surprise visit to Ottawa by the President of the United States, accompanied by the Governors of New York, Pennsylvania, Indiana and Minnesota, forced legislation that abruptly ended the strike and brought in the military to assist in the clean-up.

As the cab worked its way up the ramps to the airport entrance, Elwin was reading the last page of the standard Equidealer brochure. The Equidealer chain of independent dealers was the main marketing arm of the empire. At any local Equidealer you could buy, with or without trade-in, a new horse team and family wagon.

Equidealers offered a complete line, from a suburban wagon with draft horses, through to the family buggy equipped with a powerful, speedy but mild-mannered team, and all the way up to the sports model featuring teams sired (or so the ads said) by winners of the Kentucky Derby. The Equidealers not only supplied the team and wagons, but also offered a complete line of contracted services — feed and cleaning contracts with Equifeed and Equinure, family horsemanship training programs through the Equischools, garage to stable conversion by the Equibuild company, and regular service contracts with the local Equistable. The Equidealers offered a total package. But, noted Elwin, who else could one deal with?

Walking through the airport to his plane Elwin marvelled at the totalness of the empire. Equidealers — Equifeed — Equinure — Equistables — Equibuild — Equipower, even Equischools. He remembered Howard Mewse's delight in discussing the new ventures — the by-products subsidiaries of Equidrug, Equimeat and the soon to be announced Equifashion Boutiques. A "total life cycle" business operation were the words Mewse used to describe Equinalya.

Veni, Vidi — As he reached the boarding gate and pulled out his ticket, he found in his pocket a small crumped envelope. Now where did that come from, he wondered? Then he remembered the small elderly man who kept brushing against him in one of the meetings, trying to talk to him. Dr. Porscheton — that's who it was! As he waited for his plane, Elwin opened the envelope and read. A short, hand-written note "please write about this too" to which was attached two news clippings. The first, dated November 1978, was a full page article with photographs of Dr. Porscheton driving a small European-like car. "Only $1,500!" the headlines read. "Drive 200 miles on a gallon of gas!" Elwin read on.

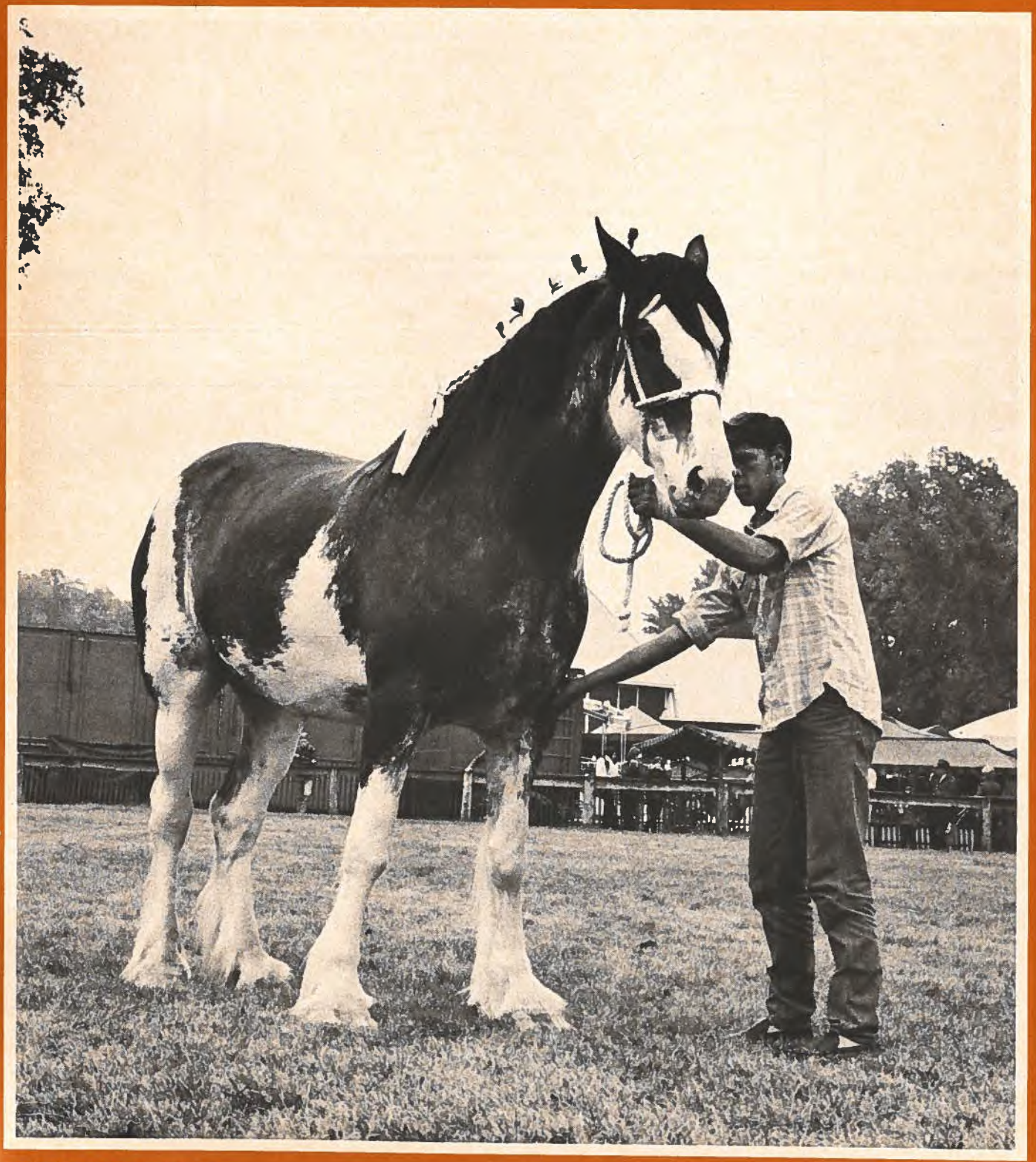
Dr. Porscheton, a lifelong friend of Howard Mewse, had, according to the article, taken on the task of making the Equithane subsidiary function. The principle behind Equithane was to convert some of the waste to methane gas, and to market it along with a whole line of methane-powered stoves and heaters for cottages, camping, etc. Technical problems arose, and Howard Mewse had called on his old friend Dr. Porscheton to get the company moving. A scientist, Dr. Porscheton apparently led the key personnel of Equithane into seclusion at some western university campus.

After a two-year period, they had suddenly emerged with a new gasoline-powered car that would revolutionize transportation, and revitalize the automobile industry.

Elwin also noted the article stated that attempts to reach Howard Mewse proved futile, and that all his office would say was that they had no knowledge of what Dr. Porscheton had been working on.

The second clipping caused Elwin to raise his eyebrows. Dated two months after the first clipping, it stated that Howard Mewse had announced that the operations of Equithane were to be terminated. The reason given was that the use of methane derived from horse manure had not proved economically feasible, and that attempts to put Dr. Porscheton's automobile engine into production had proved impossible. The article went on to note that Dr. Porscheton would be assuming the duties of director of the experimental Equifarm in the Northwest Territories.

The silver DC-23 lifted its wings into the grey October skies. Elwin watched the landscape below: the picturesque parkways — the grassy parking areas — the calm, peaceful evening traffic flow. The plane rose through the cloud bank. Elwin leafed through his notes. What would he write about Equinalya?



New Regional Office in Quebec

The Department of Industry, Trade and Commerce now has two regional offices in the Province of Quebec: one in Montreal and a new one opened recently in Quebec City. This is at Suite 620, 2 Place Quebec, Quebec, Que. G1R 2B5. The director of the office is Gilles Morin, and his telephone number is (418) 694-4726. The telex number is 011-3312.

The Quebec City office serves the Eastern Townships and the territory east of the St. Maurice River valley.

Mr. Morin was formerly with the Montreal regional office, which covers the rest of the province and is located at Room 2124, Place Victoria, P.O. Box 257, Tours de la Bourse, Montreal H4Z 1J5.

The director of the Montreal office now is Paul M. Audette and the telephone number is (514) 283-6254. Telex number is 012-0280.

Businessman's Bookshelf

Do-it-yourself legal guides

Anyone who bought all the offerings in the International Self-Counsel Press Ltd. catalogue ("The law library for everyone") could fill a medium-size bookshelf. You may have read about Jack James, the Vancouver lawyer who became a book publisher. If so, you will be familiar with how he came to believe that people were paying too much for lawyers when, with the right guidance, they could be doing much of their own legal work.

This may have lost him a few friends at the bar but it has won him many new friends in a public bewildered by the law. Mr. James received his law degree in 1970 and set up Self-Counsel Press with a couple of other graduates (no longer with the firm) to publish inexpensive textbooks for law students. Not long after that, Mr. James saw the need for more general guidelines for the public. His first sally into that field was a do-it-yourself book on divorce. So far, it has sold well enough to warrant three editions.

Building on the success of the divorce guide, 13 other titles have been added to the Self-Counsel Series. These are in addition to the 13 titles in the Case Law Studies Series, which are of a more technical nature and are intended for use by students or practitioners of law.

According to the introduction to the Self-Counsel Press 1973-74 catalogue: "All titles are written and edited by experienced legal personnel who not only explain theoretical concepts in simple layman's language but, more importantly, explain the practical 'ins and outs' of the situation."

None of the Self-Counsel publications encourage readers to fight all their legal battles without benefit of a lawyer and the catalogue makes this plain, ". . . should a legal problem involve a complex court case, as in a criminal action, or in any civil actions, a lawyer should be consulted. It is not our aim to circumvent the function of the legal profession but to supplement it."

Several Self-Counsel titles will be of particular interest to the businessman: *Credit Law Handbook, Incorporation Guide, Real Estate Guide, Employee-Employer Rights* and *Small Claims Court*. There is a *Guide to Running a Small Business*, written by accountant Clive G. Cornish, and even a guide to drafting a will. The cost of each guide runs between $1.50 and about $4.00.

There are two addresses to write to for information. Residents of Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland should write to: Self-Counsel Distributors Ltd., 38 Columbine Avenue, Toronto, Ontario M4L 1T3. Residents of Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory and Northwest Territories should write to: Self-Counsel Press Ltd., 306 West 25th Street, North Vancouver, British Columbia.

IT'S A PIG'S LIFE

Until lately, Philippine Flour Mills was just another mill producing mainly flour and its products. Today, however, under the direction of Gil. G. Puyat and following the Philippine Government's drive for more food production, it is also running a pilot pig-breeding project near Quezon. And some of the pigs are from Canada.

Shown here are some of the 100 hybrid Lacombe and Landrace pigs that arrived recently in the Philippines from Prairie Pride Enterprises, Ltd., of Manitoba. They were looked after during their long air journey by Willis Langille, general manager of Prairie Pride, and Canadian Agricultural Officer John Duvenaud. These two gentlemen took over the job of cabin steward, looking after the feeding and drinking needs of their passengers, making sure the cabin was not too hot or too cold, and that none of their charges were feeling ill. Judging by the photo, they did a good job, and it is reported that the passengers landed in the Philippines happy as a pig.

The sale by Prairie Pride could be the first of many and indicates a promising potential for Canadian livestock breeders. The Philippine Government is aware of the need to produce more locally grown food and hopes that the pig-breeding project will stimulate interest among local farmers.