

Where Defence Money Goes

The Defence Department White Paper announces that Canada will spend \$8 million during the coming year on the development of a new jet fighter and of air-to-air guided missiles with which to arm it. The jet plane program is expected to take some six years to complete.

This, says the Montreal Gazette, gives the complexity of modern armaments, the time and the money it takes to develop them. In this case, the first model of the projected CE-105 will cost approximately \$50 million and seven or more years to perfect. What accounts for such large expenditures of time, work and money? The jet age is entirely new. Though an amount of knowledge has been accumulating, the development of jet-powered aircraft is going through revolutionary changes every year as the jet power plants become more and more powerful. The immense speeds attainable today have radically changed basic design principles. Enough has been learned about the "sound barrier", for instance, for several countries to make aircraft which can fly through it and beyond it safely.

The next problem has been called the "thermal barrier", the point at which the friction of air against aircraft surfaces raises their temperature to heights which seriously affect the qualities of the metal "skins". New alloys are being perfected which retain their characteristics at high temperature.

Besides all this, Canadian air defence involves special requirements not met with in most other countries. Operating in the great distances of the Canadian North, where few communities exist, our defence aircraft must be almost self-contained units. They must be capable of great distances, be unaffected by Arctic temperatures and carry the completest of communications equipment. That is why Canada developed her own first long-range interceptor, the CF-100, because no other country had designed a craft which satisfied Canadian needs.

The cost is easier to understand. When a country is going to build at least several hundred aircraft worth a half-million or more apiece, the \$50 million it might take to develop the design is a wise investment.

The Great Pyramid

Who shall doubt "the secret hid Under Cheops' pyramid" Was that the contractor did Cheops out of several millions? —Rudyard Kipling

The attention of the world is focused again on the Great Pyramid of Cheops at Giza, Egypt, because of the remarkable discovery of funeral ships in a passageway blocked by massive stones. The discovery invalidates the poet's cynical conclusion in the lines above quoted, accentuating what Sir Thomas Browne called the mystery of "those huge structures and pyramidal immensities, of the builders whereof so little is known, who seemed not so much to raise sepulchres or temples to death as to condemn and disdain it, astonishing heaven with their audacities." How the Great Pyramid was erected is the subject of an interesting article in the New York Times. Built 5,000 years ago on a square base of which the sides differ in length by no more than an inch or so, the structure towers above its base platform 481 feet 10 inches, the average side being 775 feet 9 inches. The core masonry is laid in level courses of limestone blocks, the whole cased in fine white limestone from ancient quarries near what is now Turrha on the east side of the Nile, twelve miles away.

Engineers who have studied the Great Pyramid have marvelled at the way the big blocks were fitted together. It has been established that bedding and side faces of blocks were smeared with a film of plaster, which served as a lubricant, so that a block could be pushed into place. The final fit was made with the aid of a long copper saw, about a quarter of an inch thick. After the blade was worked between two stones to finish the faces, a stone was pushed against its neighbor. The result was a remarkably close fit. The blocks came from the quarries in the rough state, with the name, date and gang name of quarriers painted in red on one side. Since the blocks arrived unworked, there was a good deal of stone dressing on the site.

Suppose that a modern city like New York decided to reproduce the Great Pyramid in one of its public parks. How would contractors go about the task? The

Times writer quotes on this subject an engineering firm which had a hand in building Rockefeller Centre. Twenty years ago, the firm figured that it would then have taken five and a half years and \$156,000,000 in money to erect a solid stone facsimile in Central Park, assuming that stone could be quarried within a radius of twelve miles. According to Herodotus, who visited Egypt about 2,500 years after the time of Cheops, it took twenty years to construct the Great Pyramid, with 100,000 men who worked three months each year. This means 180,000,000 man-days. Today it would probably take less than five and a half years to build the pyramid of stone, but the cost would certainly be nearer half a billion.

Whatever the cost, there would doubtless be a fat commission for the contractor. Kipling's lines suggest that the same conditions prevailed in ancient Egypt, only more so. But Sir Thomas Browne should have the last word. "Of their living habits," he wrote of the pyramid builders, "they made little account, conceiving of them as but 'hospita', or inns, while they adorned the sepulchres of the dead, and planting thereon lasting bases, defied the crumbling touches of time and the misty vaporousness of oblivion. Yet all were but Babel vanities. Time sadly overcometh all things, and is now dominant, and sitteth upon a Sphinx, and looketh unto Memphis and old Thebes, while his sister Oblivion reclineth semisomnous on a pyramid, gloriously triumphing, making puzzles of Titanian erections, and turning old glories into dreams. History sinketh beneath her cloud. The traveller, as he pæth amazement through those deserts, asketh of her, Who builded them? and she mumbleth something, but what it is he heareth not."

EDITORIAL NOTES

The chicken barbecue at the Experimental Farm is still a month away but appetites are already being whetted by descriptions of the "broilers" that will constitute the bill of fare.

The Royal Canadian Army Medical Corps has a Royal colonel-in-chief. The Queen has approved the appointment of the Queen Mother who is already colonel-in-chief of the Black Watch (Royal Highland Regiment of Canada).

Enrolment for vocational training in 1953 was 250,165 in Canada compared with 124,770 in 1948, a 100 per cent increase in five years. Canadians are very obviously keen on taking part in the training programme, the increase being especially notable considering that the earlier figure represented a large proportion of veterans.

Next year some 300,000 Canadians will be carrying pencil-like instruments which detect and measure atomic radiation. The director of civil defence plans to issue these "dosimeter" to one in fifty Canadians to enable them to measure radio-activity in the event of atomic attack. It may be suspected that many of them will be used before any emergency arises in the hopeful search for uranium deposits.

Life underwriters are holding their annual sales conference in Charlottetown today. Their particular branch of insurance differs from all others in a most important respect. Generally speaking insurance can only be effected to protect against loss from an insurable risk, coverage to a greater value than the property concerned being discounted as a form of gambling. Everyone, however, is presumed to have an unlimited insurable interest in his own life.

The approach to business development must be creative says the monthly news letter of the Royal Bank of Canada. "Many business people operate in a limited field because they do not see the extent of their possible markets. They allow some arbitrary geographical line, or some feeling of timidity, or ignorance of their capacity, to fence them in. The insular, fenced-in, attitude has no productive place in business development thinking." The whole article is most valuable to anyone interested in business expansion.

Robert Bruce, the national hero of Scotland, died this date 1329. In his early years, as a rival of Baliol, he fought sometimes for and sometimes against Edward I. He served with the popular Wallace in the War of Independence but was on the English side at the siege of Sterling. Thereafter he always appears a champion of Scottish liberty. He was crowned at Scone in 1306. Many stories are told of the following years. The victory of Bannockburn in 1314 put an end to efforts of any English king to conquer Scotland. He married his daughter Marjory to the steward of Scotland, from which union sprang the Stuart dynasty. The reign of the Bruce is notable for many advances in law and government.



Salvage Operation Again Underway

Old Charlottetown and P. E. I. ISLAND REVENUE

"In a twaddling article in the Halifax Free Press on the 13th inst., on the disputes between our Council and Assembly, the sapient Editor of that paper announces to the inhabitants of this island that 'the present dispute claims not his sympathy.' Under this deprivation they will, we dare say, sit very easy; but as he has thought fit, in addition, to trumpet to the world, that the whole amount of the yearly revenue of the island falls short of two thousand pounds, we must be candid, and tell him he lies — under a mistake. It is true, as was announced by the Lieutenant Governor in his speech on opening the last Session, there was a falling off in the trade of the island last year, from the great depression in a leading branch of our exports; still the net sum paid into the Treasury, was exactly £3,180 16s. 11½d. —P. E. I. Register, May 20, 1828.

Sir Winston Praises Royal Pilgrimage

The Queen's tour of the Commonwealth was described as "a Royal pilgrimage" and as "an event without an equal in our records" by Sir Winston Churchill when, in the House of Commons, the leaders of all parties added their welcome to the Queen and Duke of Edinburgh on their return to Britain.

Sir Winston was moving that a humble address be presented to the Queen, assuring her of the House's "loyal and affectionate welcome" to her and the Duke.

Sir Winston declared that when the background of this formidable century rose in their minds the gleaming episode of the Queen's journey among her peoples constituted an event which stood forth without an equal in our records and cast a light, clear, calm, gay, and benignant, on the whole human scene.

"The Queen's journey of nearly six months has reminded all the nations of the message we have brought, and the causes for which we stand: the constitutional monarchy surely founded in the hearts of its people, the Crown the servant not the master of the State; a harmonious reconciliation of the past with the present, the spirit of individual freedom, tolerance, and fair play, the capacity at the same time to change and to endure.

"All these facts and themes have been presented as was never before possible for all the world to see. From the beginning to the end this Royal pilgrimage has reasserted human values and given new pre-eminence to the grace and dignity of life.

"All over the globe there has been a sense of kindly feeling and generous admiration. Even envy wore a friendly smile."

Mr. Attlee, Leader of the Opposition, referred to Saturday's demonstration of the people's feelings, and added:

"The people saw not only a ruler, but a friend. They saw a young and beautiful woman and her husband symbolising the kind of family life that we all love and respect."

Mr. Clement Davies, the Liberal leader, said that he believed that "we of the Commonwealth are, in our gracious Queen and Royal Family, the envy of the rest of the world."

BLACKPOOL, England (CP) — RAF dental expert demonstrated a painless ultrasonic dentist drill at the British Dental Association's annual conference. The inventor claims the drill works too fast to register on the human nervous system.

BARRY ISLAND, Wales (CP) — Mayor Tom Yeoman presented the first television set to be installed on a lightship serving the British Isles. It went to the Breaksea lightship straddling the Glamorgan-shire coast.

Flower Pictures

(Jacob Deschlin in the New York Times)

Well timed for season and well-timed for a useful book and window garden is helpfully on the subject, "Photographing Your Flowers" (New York: Greenberg; Publisher, \$3.75; Paper edition, \$1.95), deserves wide acceptance by amateurs and semi-professionals as well. Authoritative and based on years of experience in photographing flowers, gardens and similar material, the book is the work of John P. and Mary Alice Roche of Caldwell, N. J.

Subtitled "A Practical Guide for Indoor and Outdoor Use," it is this and much more, for the authors have approached their subject imaginatively and with a desire not merely to give information and counsel, but at the same time to communicate their enthusiasm and to inspire a like responsiveness in the reader.

"There are two general aims in flower photography," they write. "One is to be nature's interpreter — an inspired one, let us hope, but still an interpreter who recreates her beauties and her strangeness in such a fashion that they bring a new thrill of recognition or discovery to the beholder. The other is to use plant material purely as a medium with which to create one's own designs. Both aims are seldom achieved in the same picture. For the second, only the principles of good design need be considered; while in the first, those principles may be used to show nature strikingly, but always truthfully."

The authors constantly strive to push their point that appreciation and knowledge of nature, must invariably precede actual photography. This quotation from their chapter on close-ups outdoors is typical of their attitude: "The wonderful order and design of nature herself is revealed. The photographer need no longer contrive visual paths leading to a central axis; each flower is an inviting path to its own heart. Both the author and the subject, the continuance of the species. He need no longer strive to create balance and harmony, but only to reproduce the balance and harmony present in every plant."

In discussing practical matters, the authors are specific and give detailed instruction, giving exactly the information the reader needs to make successful photographs of the material in question. They take no knowledge for granted, assuming the reader to be a beginner and spell out the needed know-how with the zeal of teachers anxious to make themselves thoroughly understood and to assure good results. For example, from the chapter on "Bringing Flowers Indoors," "To be sure all material retains its freshness during extensive handling and under hot light, you have to 'condition' each subject according to its type. It may look fine until the very last, then droop just as the shutter is clicked. A heating period of two or three hours in deep water, is the best preparation; but any length of soaking is a help. When we go out foraging, we take along a carrying case, a narrow wooden box with a tall handle, containing glass jars full of water. We put the flowers in these as soon as we pick them."

"To remain fresh, flowers should not only be soaked in water, but they also should be properly cut. Plants which 'bleed,' that is, whose stems contain a liquid which is apt to be lost when they are cut, must have their stems sealed immediately after they are cut and before they are placed in water. We use a candle to seal them. If any sign of wilting occurs, we recut the stems later, in the house, return them in the gas flame, and put them in very warm water, then cold, for a long soaking."

With such attention to detail, the authors explain how to photograph outdoor gardens in color and in black-and-white, the use of color indoors and out, and differences in handling various flower specimens. They go into matters relating to color harmony, composition, exposure, design and the important subject of proper illumination by daylight and artificial sources. Day-

The Poet's Corner

BOG LOVE

Wee Shemus was a misdropt man Without a shoulder to his back: He had the way to lift a rann, And throttled rabbits in a sack.

And red-haired Mary whom he wed, Brought him but thirty shillings told: She had but one eye in her head, But Shemus counted it for gold.

The two went singing in the hay, Or kissing underneath the shoes, And where they chanced to pass the day There was no need to scare the crows;

But now with Mary waked and laid As dead as she lived and died, Poor Shemus went to buy a spade To dig himself a place beside.

—Shane Leslie.

The Age Old Story

Unto the upright there ariseth light in the darkness: he is gracious, and full of compassion, and righteous.

PAKENHAM, England (CP) — Residents of this Suffolk village, recently provided with tap water, still use a 50-year-old pump. "Tap water may be more hygienic but it doesn't taste as good," said one old-timer.

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NOTES BY THE WAY

"The money the other fellow has is capital. Getting it away from him is labor." —Moose Jaw Times-Herald.

In Nova Scotia a drive has been underway to curb reckless driving and in so doing reduce the accident toll. At a joint dinner meeting of Truro Service Clubs and Boards of Trade, attention of the guests was attracted to a safety slogan, "Sing While You Drive", printed on a small piece of blotting paper and placed under each water glass. Here's how it reads: At 45 miles per hour sing — "Highways are Happy Ways"; At 55 miles sing — "I'm but a stranger here, Heaven is my home"; At 65 miles sing — "Nearer My God to Thee"; At 75 miles sing — "When the Roll is Called up Yonder, I'll Be There"; At 85 miles sing — "Lord I'm Coming Home". In other words "Keep under 50 and live longer." —Nova Scotia Farm News.

Men who are fashion-inclined, even some who are fashion-disinclined, will be interested in the news that experts have now proclaimed tattersall weskits to be a "standard men's accessory." Stuffed men are, of course, a little hard to find in this individualistic area, but the weskits, which generally is of a checked and rather brush pattern, does pose a number of problems to the conscientious male. It's puzzling to know, for instance, why the weskits should be regarded as an accessory rather than as a straightforward article of clothing. No one would dream of describing a pair of trousers as an accessory, and yet the fashion experts seem to equate weskits with trousers as a necessary article of male attire. —From the New York Herald Tribune.

Hitch-hikers who stand beside the road to thumb rides to save themselves from walking a few miles, wouldn't understand the mental makeup of a 68-year-old Toronto woman who Victoria Day night finished her annual birthday hike on schedule — a mile for every year. Nor would she — Mrs. Brandt Johnston — comprehend the thinking apparatus of a sturdy youth who waits by the roadside a long-er time for a ride than it would

take him to cover the distance he wants to go, if he set forth on foot without a dilly or dally. "Walking keeps my figure good," she explained. And no doubt her mind alert. It can be accepted that Mrs. Johnston really knows what the world looks like, as it can be of other observant hikers who recognize a blue bird on the wing when they see one. —Sydney Post-Record.

Northern Affairs Minister Lesage has offered "a rare kind of challenge" to Canadians. Like most challenges, it carries rewards. A new job has been opened by the department and the minister is asking for Canadians, and their families, to fill it. The post of Northern Service officers has been created to develop the abilities and the resources of established Eskimo communities and their people. Officers will be posted at Akivik where the Mackenzie River near the Arctic; at Coppermine on Coronation Gulf; at Coral Harbor on Southampton Island; at Port Harrison on the east coast of Hudson Bay; at Frobisher Bay on Baffin Island; at Fort Chimo on Ungava Bay. This is pioneering. The Northern Service officers will ease the change from old to new ways of living for the Eskimo, his family and his community. —Montreal Gazette.

Our passion for putting people in prison is such that in 1950 the equivalent of one out of every 139 Canadians spent some time in a cell, during the same period, England and Wales together sent only one person out of every 2,095 to jail. What we are doing, of course, is turning young offenders into hardened criminals, creating an ever-growing army of "repeaters," and wasting a good bit of our most precious natural resource — men and women. In some parts of the country a start has been made on a more enlightened treatment of law-breakers, particularly of youngsters who have slipped from grace. Probably the greatest single thing we could do would be to organize a system of probation similar to that in Britain; it would be far more constructive a step than moaning about the increase in crime and the need for more and bigger jails. —Saturday Night.

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