

Tightening Coal Situation Presses Br. Atomic Power

By KEN METHERAL, Canadian Press Staff Writer
 SEASCALE, England (CP)—Britain, faced with a steadily deteriorating coal supply, is pressing to complete the world's first large-scale atomic power station.
 One year from now Calder Hall "A"—a mass of steel and concrete near this West Cumberland seaside village—is to begin generating a gross output of 92 megawatts of electricity, enough to light a city the size of Montreal.
 The £15,000,000 Calder Hall project, partly based on research carried out at Canada's Chalk River plant, is the first under a long-range atomic power development program that may give British scientists and industrial concerns an appreciable lead over other countries in this important phase of the nuclear age.
 Calder Hall's massive structures have a deep, almost over-powering impression of the savage, tremendous forces man has unleashed in splitting the atom. And the maze of tubing and towering concrete have an unreal, futuristic appearance that seem wholly in keeping with the atomic age.

actor stage of the plant that British scientists drew upon knowledge gained from Chalk River.
WIDE EXPERIENCE
 "Canada, through Chalk River, played a vital part in allowing us to proceed so rapidly with our power program," says Herrial, Davey's works general manager at Calder Hall.
 "Canadian scientists had gained wide experience in the processing of fission material and we sent some of our people to Chalk River to work with them and acquire that experience."
 Former Chalk River scientists now engaged in the program include T. G. Hughes, J. J. Boyle and G. R. Howells.
 Calder Hall "A" is only the forerunner of a chain of atomic power stations planned under the long-range program. Already foundations are being laid for three more stations, one adjacent to the present site and the other two at Chapel Cross, near Annan, on the Scottish west coast.
MILITARY PRODUCTION
 All four are designed not only as

power stations but for the production of the military explosive plutonium. By 1965 Britain expects to have 12 additional atomic stations, designed primarily for production of electrical energy. The 12 will produce an amount of electricity which would require the equivalent of some 6,000,000 tons of coal annually. British power stations now consume about 48,000,000 tons of coal each year.
 Meanwhile another team of scientists is hard at work at Dounreay, near Thurso at the northern tip of Scotland, building a proto-type of Britain's atomic power plant of the future.
 The Dounreay project is designed as a highly-rated fast fission reactor incorporating expensive and rare materials of construction.
 Sir Christopher Hinton, head of the United Kingdom atomic energy authority, likes to describe Calder Hall as the slow-speed reciprocating engine of the reactor world, reliable and almost conventional in design.
 Dounreay, he predicts, will be the gas turbine of the nuclear reactor world.

JOURNEE OF HEAT
 Basically the station consists of two slow-fission piles which are the reactor or source of heat. Uranium rods supply the fuel. The atomic reactors are enclosed in a steel pressure vessel and cooled by a forced draught of carbon dioxide gas. The compressed gas, in turn, passed through "heat exchangers" or water boilers to produce steam.
 The steam is led off to a power house between the two piles, where it drives four turbo-generators, each capable of an output of 23 megawatts—enough to supply a town of 20,000 people.
 Once past the turbines, the steam is condensed and the water taken to two egg-shaped concrete structures called "cooling towers." The towers, supported on thin struts of concrete, stand 290 feet above the green, rolling hills of the surrounding countryside. They are designed to lower the temperature of 3,000,000 gallons of water by 10 degrees centigrade an hour.
 The 20 tons of CO₂ and the water each flow through closed circuits and are used over and over.
 It was in the design of the re-

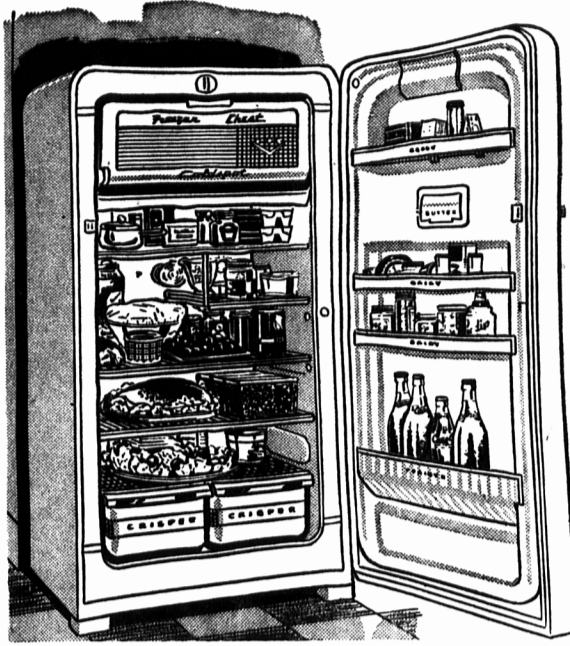
ALBERTON W.I.
 The December meeting of Alberton W.I. met at the home of Mrs. Arthur Wilkie on December 2nd, the new president, Mrs. A. C. Green presided. After the collect in unison, the hymn "O Come all ye Faithful" was sung. Roll call was answered by 13 members with a Christmas verse. Minutes were read and approved. Treasurer's report showed a neat balance on hand.
 It was decided to forward a donation to the T.B. League. Twelve thousand capsules have been prepared for pupils of Alberton school. Six community friendship calls had been made during the month by the visiting committee. Mrs. Thomas Phillips reported the arrangements had been made for the transportation of winners of Shur-gain Caldecade to Charlottetown for the finals on December 3rd.
 January meeting will be held at Mrs. Earl Atkinson's with Mrs. Ged Hunter and Mrs. Orville Phillips as assistant hostesses. This meeting will be on January 13th. New hall comm. Mrs. Wilkie and

Mrs. Johnston, Mrs. Green and Mrs. Wilkie are in charge of treats for shut-ins and elderly folk while hospital carol com. will be Mrs. Weeks, Mrs. Rooney and Mrs. Orville Phillips. Mrs. Thomas Phillips and Mrs. Orville Phillips will pack candy for hospital patients and staff. Program consisted of a story and Christmas carols and an exchange of Christmas gifts. Following an enjoyable social hour the meeting closed with the singing of God save the Queen.
 About 2,000,000 grouse are shot in the autumn season each year on the moorlands of Britain.



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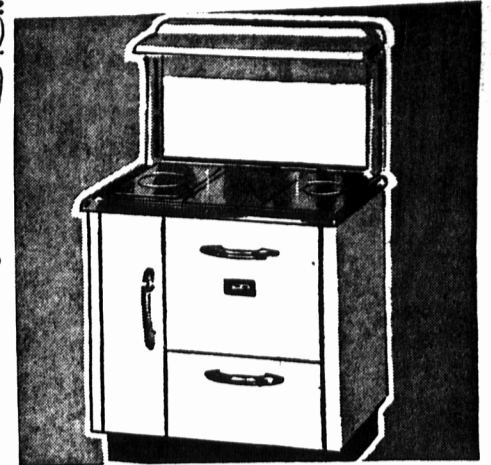


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	Old Fashioned Island 2 Lbs.	Aylmer 3 Tins
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69c pkg.

EXTRA SPECIAL!
 Robin Hood PICE CAKE MIX and GOLDEN 2 Pkgs. **49c**

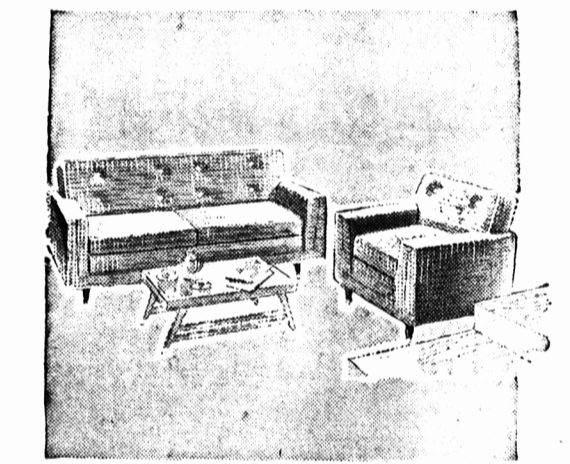
Red Rose Lb.	Large 2 For
TEA 1.09	CORNED MACKEREL 49c
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Something New and Different MONARCH SPONGE PUDDING
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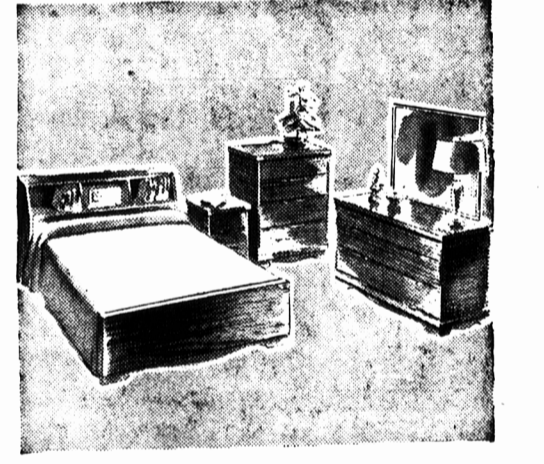
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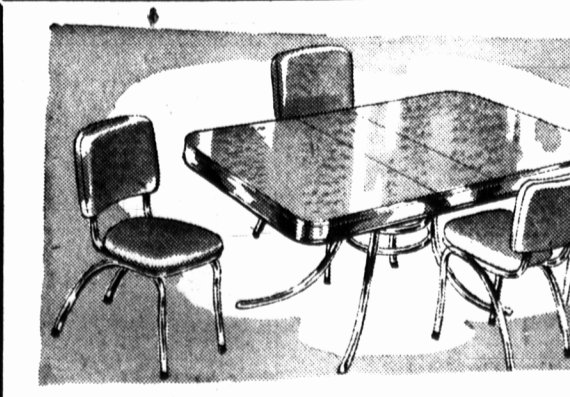
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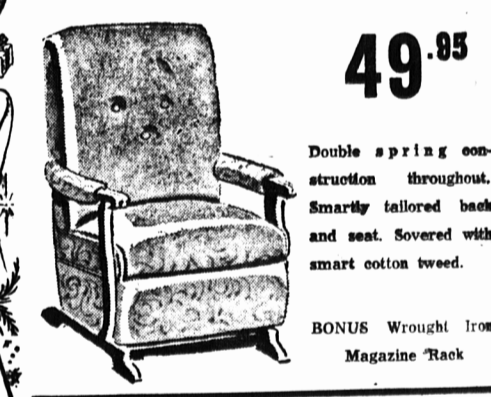
5 ply tops, fronts and ends in handrubbed Walnut veneers. Suite consists of chest, double dresser and bookcase bed. Bevelled plate glass tilting mirrors, solid grooved pulls.
BONUS—Seally Mattress valued at \$69.95



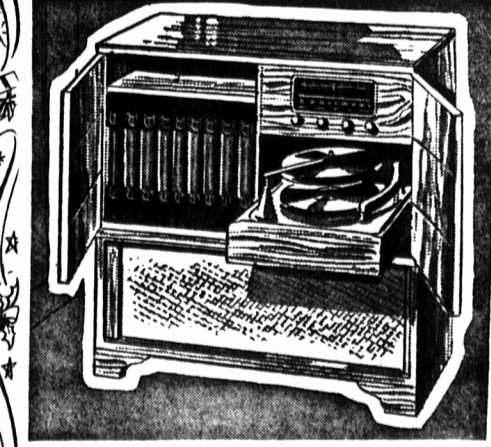
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