NATURAL RESOURCES

Natural Gas Will Last

➤ USERS OF natural gas for cooking and heating have long years ahead before there will be a shortage of this convenient fuel, Dr. Gustav Egloff, Universal Oil Products Company, told the American Gas Association meeting in Atlantic City. Proved reserves contain about a 25-year supply and new reserves are being discovered each year.

The natural gas industry has been undergoing a phenomenal expansion in the past decade and promises continuing growth into the foreseeable future, he said. Five times as much is marketed now as in 1935, but proved reserves are three times greater. Proved reserves include only those definitely proved by drilling. There are great areas of the United States not yet drilled and there are probably great quantities of natural gas in the continental shelves extending from coast lines far out into the oceans.

Figures reported by Dr. Egloff give an estimate of natural gas in proved reserves as 194 trillion cubic feet. Ultimate reserves are estimated at up to 500 trillion cubic feet. The 194 trillion cubic feet includes free gas not associated with petroleum, free gas in contact with, but not in solution in crude oil, gas in solution with petroleum, and gas in underground storage.

It is important to point out that natural gas has been discovered at a much faster rate than petroleum and natural gas liquids in recent years, he stated. If this trend continues to 1960, our cumulative discoveries of natural gas on a thermal basis will be 55% of the total liquid and gaseous hydrocarbon discoveries, whereas in 1950, they were only 30%. On a thermal basis, there is about the same amount of heat energy in our present proved reserves of natural gas as there is in our proved reserves of liquid hydrocarbons, which include crude oil and natural gas liquids.

Science News Letter, November 8, 1952

AERONAUTICS

Plan Flying Freighters

➤ BRITISH AVIATION is looking to giant flying boats, particularly as freight-carriers, to solve problems now faced because of increasing shipments of British products to overseas nations. Land-based airplanes are not always suitable because airports to accommodate giant craft are not always available.

With flying boats, water in the neighborhood of the destinations can be used for landing. Suitable waters for landing are available along the shores of most nation-customers. Piers for unloading are desirable but scows can be used instead. Flying boats would be of special advantage in time of war, it is thought, because they could be used to bring men and supplies close to British invading troops where there is a complete absence of land airstrips.

The come-back to the flying boat is a result of seaplane research conducted in England during the past few years, together with work done in the United States. New hulls have been designed to lessen the drag that made older types difficult to operate from water. Jet power can now be applied to them, eliminating problems encountered with conventional engines.

Streamlining the hull permits faster travel in the air, but it also decreases the drag or air resistance at take-off. The long slender hull now used does not need the step half-way back along the hull to break up the suction of the flow of water when the boat is taking off. Design details give stability on the water and in the air.

The development of jet power plants with no propellers enables designers to put the wings of the flying boat in the best position without fear of their injury by spray. Propeller engines must be placed high above the water or they are easily damaged. Wings themselves may be injured by salt water spray.

Both the Short and the Saunders-Roe airplane construction companies are active in the flying boat field. The Saunders-Roe Princess giant seaplane is one result. It will be powered by ten turboprop engines. Another flying boat will be driven by six engines of the by-pass, or ducted-fan, type. They will be mounted in the tail so that cabin noise can be reduced to a minimum.

Science News Letter, November 8, 1952

NUTRITION

Emotional Satisfaction Needed When Reducing

➤ FAT PEOPLE and their doctors need an Einstein or a Planck to give them the right formula for successful weight reduction, Dr. Henry W. Brosin of the University of Pittsburgh School of Medicine declared at a Symposium on Nutrition in Boston sponsored by the Harvard School of Public Health and the New England Postgraduate Assembly.

The successful formula, Dr. Brosin suggested, would balance intake and output not only of food and physical energy but also of emotional satisfactions.

"If one takes away smoking, food and alcohol from a hard-working man who unhappily receives little genuine satisfaction from his job, no matter how important, or from his family, no matter how well meaning or grand in appearance, one has the obligation to put something constructive in its place," Dr. Brosin stated.

If appropriate activities that take the place of eating in giving satisfaction are not available, the "patient and his entire family and business associates are put under stress."

Many overweight patients have as little ability to abstain from overeating as alcoholics have to refrain from drinking, Dr. Brosin declared.

Harassing and scolding the overweight person will not cure him of his obesity any more than such measures would cure a patient of pneumonia.

Science News Letter, November 8, 1952

SCIENCE NEWS LETTER

VOL. 62 NOVEMBER 8, 1952 No. 19

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C., NOrth 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., $5.50; 2 yrs., $10.00; 3 yrs., $14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to Periodical Literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., PEnnsylvania 6-5566, and 360 N. Michigan Ave., Chicago, STate 2-4822.