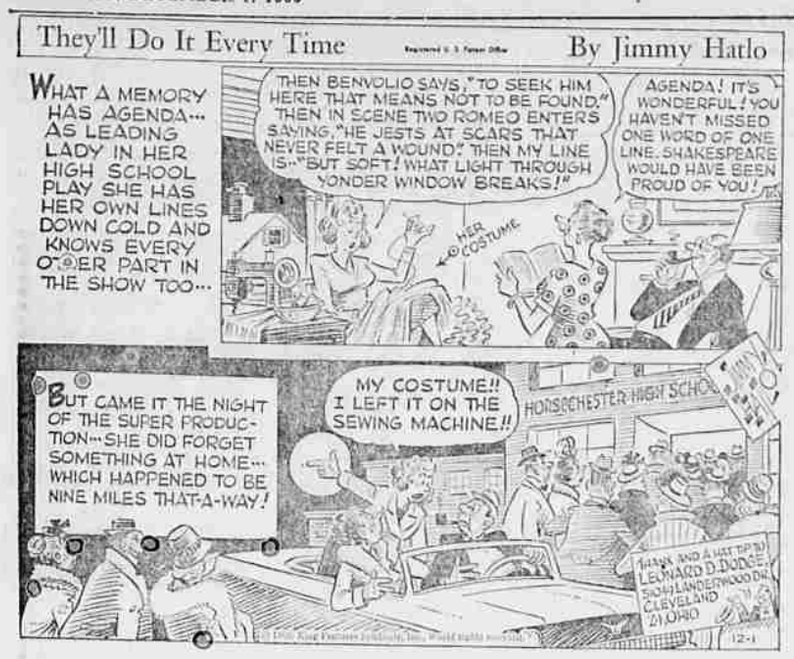

Thyroid Glands of Slaughter Animals Detect Atomic Blasts

By DELOS SMITH
UPI Science Editor

New York – (UPI) – A sensitive detector of atomic bomb explosions anywhere in the world recorded two "positives" in the early part of this year which the scientist in charge is unable to explain.


Delos Smith

This detector is the thyroid glands of the slaughter animals of the world – sheep, cattle and swine. The scientist in charge is Dr. L. Van Middlesworth of the University of Tennessee, Memphis.

Thyroid glands whether of man or beast will absorb any iodine which becomes available to them. Iodine-131, a radioactive isotope of this element, is made available to all thyroid glands by atomic bomb explosions since it is one of the fall-out products.

Middlesworth established the scientific accuracy of this detector some years ago. He receives the preserved thyroids of slaughter animals from many parts of the world periodically and measures them for iodine-131 content.

In the first four months of this year there were four marked increases of this radioactive isotope in animal thyroids. Two are readily explained. The French tested atomic weapons in the Sahara Desert on February 13 and again on April 1, according to the official announcements at the time.

Reach Relative High

However, the iodine-131 content of the thyroids of sheep reared around Nashville, Tenn., reached a relative high in January. And after the peak of increased iodine-131 in animal thyroids in many parts of the world following the February explosions, there was a second peak which occurred well in advance of the April explosions.

It may be that the atmospheric fall-out of iodine-131 following a series of atomic bomb explosions comes in two phases, Middlesworth reported. If so this would explain the two peaks of thyroid iodine-131 between the two sets of atomic tests.

But it wouldn't explain the purely local increase in sheep thyroids around Nashville, Tenn. A second explanation would be new increases in atmospheric iodine-131 not connected with announced explosions, Middlesworth added.

The remarkable sensitivity of animal thyroids to atmospheric iodine-131 was illustrated by Middlesworth's newest calculations. Eight days after the first Sahara explosions on February 13, the thyroids of sheep around Haifa, Israel were taking up the radioactive isotope.

Iodine Content Increases

Eleven days afterwards the thyroids of cattle in Formosa contained 100 times more iodine-131 than they had in January and earlier in February. Even the pigs around Middlesworth's own ballywick, Memphis, had an increased amount in their thyroids.

The highest concentration he measured were in the thyroids of sheep in Portugal. By early March the content was at its maximum in sheep in Germany, around London and Nashville, and in cattle around Memphis and in Formosa.

Sheep around Munich, Germany and in Portugal got their highest boosts after the April 1 test explosions, but those around London and Memphis got their highest from the two peaks following the February explosion. Middlesworth was unable to explain this discrepancy. He didn't have enough data.

Canal Winchester, Ohio – The mailman sees spots when he delivers mail to Mr. and Mrs. Webster Shaw.

They have a red, blue, green, yellow and black polka-dot mailbox. Mrs. Shaw designed and painted the box, using a jar top to outline the circles.

"Some people like it, and some don't," Shaw says.

Utilization of Unused Patents Brings New Products to Market

By HENRY J. BECHTOLD
UPI Financial Editor

New York—(UPI)—Where there's a will there's a way.

This old saying may well describe National Patent Development Corp., which is proving that there still are new and different ways to make money in America.


Henry Bechtold

This recently-formed company's underlying purpose is to bring new ideas and products to the public through the utilization of dormant patents.

These unused patents, according to company chairman Jess Larson, could pave the way for millions of dollars of new products and other technological advances.

Literally thousands of new developments are kept from commercialization because they are covered by patents not being utilized, the former War Assets Administrator declared.

Many Idle

The U.S. Patent Office annually issues more than 60,000 new patents and it currently has an estimated backlog of some 200,000 patent applications. However, only a fraction of all patented developments is ever commercialized, and of these, only a smaller fraction turn out to be profitable.

The problem today, Larson said, is that countless new products and applications are daily being uncovered as an offshoot of industrial research. These new developments customarily are patented, but they are not commercially exploited for the benefit of the public because they are not related to the principal business of the company that sponsored the research work. Or maybe the company does not foresee a market for them.

Meanwhile, other companies often are seeking the same or essentially the same idea which another company has patented but which it is not utilizing.

If these companies could be brought together – the one supplying use of the patent, the other supplying the need for it—everyone would benefit, Larson stated.

The problem here is to be added, how to bring buyer and seller together to their mutual benefit. It is here the National Patent Development Corp. thinks it can be of invaluable service as an intermediary.

Not only can it bring interested companies together, Larson said, but it also can invest in technological developments, supply legal and technical advice, and, where necessary, obtain financial assistance to bring these developments to the commercial stage.

Larson noted that many big organizations with patents not now being utilized are making these patents available to National Patent Development on a contractual basis.

These firms include American Machine & Foundary, AVCO, Chance Vought, Glidden, International Latex, Perk, Perkin-Elmer, Textron, Tracy, Swift and Thiokol.

The great diversity of these companies suggests the wide range of fields in which patented developments can be put to use.

Larson concludes that countless discoveries can be translated into practical developments and help our living standard. Better use of our technical resources by utilizing existing discoveries and inventions.

College Student's Idea Turned Into Thriving Business

Chicago–(UPI) – Even before Howard R. Conant left the University of Pennsylvania with his degree in 1947, he had earned $6,000 by selling steel on the telephone.

Today, Conant, 36, heads a firm—Interstate Steel Company—that will gross $15 million in fiscal 1960.

Conant was just out of the Army and newly entered at Philadelphia to finish his interrupted education when he decided to make steel his career.

His idea was this—steel is so big at the mill level why wouldn't there be a good business in selling smaller customers who needed steel in a hurry and not in the large amounts usually sold by the big mills.

Actually this is the steel warehousing business, or—as it is known in the trade—steel service centers.

Good Old Procedure

For capital in buying steel, Conant used the proceeds from the sale of an automobile before entering the army. He bid on government surplus and advertised sale of the steel in trade journals, giving his fraternity house telephone as his office.

Returning here after graduation, Conant continued at a borrowed desk and chair in a wood side office. The business mushroomed, aided by Conant's sales and service techniques—overnight delivery service, using football players as salesmen, flying a company plane anywhere to close a deal by personal contact.

Looking back in retrospect today, Conant observed:

"We skyrocketed so fast in sales volume, I didn't have a chance to pause and reflect until the steel strike came along and put a temporary halt on our business when we got down to the bottom of our inventory. All of a sudden we looked around last fall and found our warehouse just about empty and all our assets tied up. I guess to some fellows in business, this would be a desirable situation, but frankly we didn't like it."

Worked as Shoe Salesman

Salesmanship was not a new thing to Conant. He did his first selling while a high school student here at the age of 15, working as a shoe salesman on Saturday. He amazed the manager one day by coming up from the budget basement with his arms filled with 16 pairs of shoes he had sold to one woman.

Typical of the small scale on which Conant launched interstate was one of his first deals. He saw a newspaper ad offering steel for sale in one column and a "steel wanted" ad in another column.

"There was a total of 3,460 pounds involved," he recalled. "I made a penny a pound, or $34.60, by making two phone calls, to the seller and to the buyer."

But sales volume soared tremendously after that–from $500,000 the first year to $4.7 million in 1950.

"I guess we were younger and more energetic than others in the strong steel market at the time," Conant said.

Several Offices

Interstate's sales force now operates out of offices in Milwaukee, Minneapolis, Indianapolis, Des Moines, Green Bay and Rockford and Niles, Mich., in addition to Chicago.

"Every salesman we have is an executive on his own," Conant said. "He has full authority to make and close a deal, which will be backed up by his home office even though we may not particularly like it. But we feel that only by giving him full authority to make decisions can we give customers the kind of fast, immediate service they need."

A slender, highly-charged, fast-moving businessman, Conant is a lover of sports, both as a spectator and a participant. He keeps in shape by playing a fast game of tennis in the summer at his own private court next to his Glenview home and in winter indoors at the Broadway armory.

Radar Used For Tracking Entry Into Atmosphere

Boston, Science Service–Radar tracking of a speeding object's re-entry into the earth's atmosphere is being studied using six-stage rockets fired from Wallops Island, Va. Three stages are used to hurl a space vehicle to nearly 200 miles, the other three send it earthward.

Dr. Giulio F. Pippert of Massachusetts Institute of Technology's Lincoln laboratory reported on research aimed at solving problems of defense against ballistic missiles and improving methods of locating and communicating with homeward-bound space vehicles.

When the five-inch sphere carried in the space vehicle is rocketed earthward it attains hypervelocities. The sphere leaves in its wake a fiery trail of electrified gases for the scientists to probe and test with radar and optical devises.

When an object with hypervelocity re-enters the atmosphere, the air is heated to between 5,000 and 10,000 degrees centigrade. (The sun's temperature is 6,000 degrees.) An ionized gaseous sheath is formed and left in the object's wake. This plasma is being probed and tested as part of the Lincoln Laboratory's re-entry research, Pippert reported to the Northeast Electronics Research and Engineering meeting here today.

All known communication, detection and tracking techniques are affected by the drastic changes that occur when a vehicle from space re-enters the atmosphere.

New Teel Trucks Static Created By Large Storms

Boulder, Colo., Science Service–A new tool that can pick up static from lightning storms, tornadoes and hurricanes with greater accuracy has been developed at the National Bureau of Standards' Boulder Laboratories here.

The system, named "Ephi," consists of three 125-foot antenna towers, four miles apart, and a central control station, located in an old schoolhouse near Brighton, Colo.

The three antenna poles form a triangle, and when a storm occurs, the sferic, or static, radio signals reach each antenna at a slightly different time, except when a storm occurs at the exact center of the triangle. From the antennas the signals are sent to the central control station where electronic equipment determines the direction to the lightning source.

Counts Signals

Ephi can also count the number of static signals arriving from several different directions at the same time. In addition, the sferic waveform on an oscilloscope can be photographed either with still or movie cameras for studies aimed at a better understanding of radio wave propagation and the nature of lightning.

For tracking tornadoes and hurricanes, two stations like the one just installed could determine the position of a storm at distances of many hundreds of miles from either station.