

HE IGNORED COMIC BOOKS...

KUHS Senior Is Working On Complex Nerve Theory

By NORM CARDOZA

While a lot of his classmates were still playing marbles or reading comic books, Lloyd Case Jr. bought his first chemistry set with his month's wages for delivering papers. He was a seventh grader.

Now that he is a senior at Klamath Union High School, Case, 17, is working on a chemical theory of his that may prove very significant in knowledge of nerve construction and functions.

By pulverizing and applying a series of solvents to some beef brain tissue, Case has isolated some crystals of protein—a family of very complex organic compounds—of reasonable purity.

He has built an "electro-phoresis" apparatus and hopes to further break down the protein and in doing so to isolate a substance that scientists believe exists in nerve cells but that so far has eluded them.

But Case has to wait until he gets some more money before putting his machine into operation. The apparatus consists, briefly, of a sheet of absorptive chromatography paper with high direct current voltages applied to each side.

Elements of protein solutions allowed to drift down the inclined sheet are attracted to the charged portions of the paper in varying degrees; thus, by careful calculation, a chemist is able to predict about where and when an element he wants will appear.

Case is looking for a "lipo" (or fat-bearing) protein compound he believes may exist in nerve cells that has unusual electrical qualities. If he can find it, he may have solved the manner in which nerves generate and transmit impulses.

Neuro-biologists — those who study nerves—believe nerve cells are enclosed in a membrane so thin, it has never been seen. Interplay of ions, or charged atomic particles, between the inside and outside of the membrane creates electric currents that give nerves their properties, they believe.

Case, when he isolates his lipoproteins, plans to spread each of the compounds in a very thin film on water, then attempt to penetrate the film with an electric spark in hopes of determining electrical qualities that correspond to scientists' concepts of ionic action in nerve cells.

Case wants to enter Brigham Young University next fall to study bio-chemistry. He hopes to obtain a doctorate degree in bio-chemistry, then to work with industry or as a research professor in a college.

Industry offers more money, says Case, but research offers more satisfaction.

He is interested in all sciences, including those as divorced from chemistry as anthropology. A radio-telescope he built himself at home last summer is almost ready to go. It consists of a dish-shaped reflector designed to receive radio signals from a minute portion of the sky and to focus the waves on an antenna. Signals are then amplified enormously and recorded on the screen of an oscilloscope or on a revolving graph.

By the power and frequency of signals received, scientists are able to tell something about qualities of various stars, nebulas and other celestial phenomena. About all that Case needs to see if his rig will work is an oscilloscope—an electronic gadget that transforms radio waves into waves visible on a tiny television screen. He is saving money to buy one.

Friday, Case took the Science Talent Search Contest examination offered annually by a major manufacturer of electrical products and administered here by Mrs. Franc G. Bailey, KUHS biology teacher. The examination covered details of most major sciences and some mathematics. It required 2½ hours to complete. He must also write a 1,000-word report of his current school science project—the study of nerve tissue.

If Case scores high enough, he will be among 40 students from the nation invited on an expense-paid trip to Washington, D.C., to attend the Science Talent Institute for five days next spring and to be judged for scholarships and awards.

Five of the winners will receive scholarships ranging from \$7,500 to \$3,000 and the remaining 35 will receive \$250 each. An honors group also will be named.

He is the son of Mr. and Mrs. Lloyd Case Sr., 2234 Orchard Avenue. At KUHS, he is a member of "The Academicians," a lecture and debate club he and other students organized, and the Science, Math and Latin clubs.



THE CREAM OF THE CROP of scholars at Klamath Union High School includes Lloyd Case Jr., who is tinkering with science projects most college seniors would consider unthinkable.

Two Killed By SP Train

ALBANY, Ore. (AP) — A pickup truck was struck by the Southern Pacific Shasta Daylight passenger train at a crossing near here Friday, killing two persons in the truck.

State policeman Robert Patrick identified the dead as James Richard Smith, 44, and Ervin George Bland, 25, both of Albany. Patrick said the two men — employees at the Wah Chang Corp. metals plant here — were bound home for lunch when Smith's pickup truck was struck by the train. The accident happened at a crossing on the access road west of the Highway 99 Freeway.

Patrick said the truck was demolished.

The train, whose engineer was identified as Steve Stitelski, Portland, was traveling about 75 miles an hour at the time. Witnesses said the train's lights and horn and the warning signals at the crossing were ringing at the time the truck and train hit.

DESECRATES FLAG

BLOOMINGTON, Ind. (AP) — Theodore McCart, 50, a disabled World War II veteran, was held for \$500 bail Wednesday on a flag desecration charge. Police said he had been using an American flag to keep snow off the windshield of his truck. McCart said he didn't know such use was a violation of state and federal laws.

Lake County Lamb Pool Has Big Year

LAKEVIEW—The Lake County Farm Bureau Marketing Association lamb pool did a gross business of \$48,338 in 1960, according to figures released by Eva Manning, association secretary-treasurer.

Andy Hill was pool chairman this year. A total of 1,876 fat lambs were shipped, weighing an average of 96 pounds at an average price of \$17.45 per hundredweight, and \$18.25 was the highest price paid on the first pool and \$17 was the low on the last pool.

There were 1,266 feeder lambs sold at an average weight of 85 pounds. Price on feeders varied from a high of \$15 per cwt. to a low of \$13 per cwt. Quality of feeders determined price within the range.

Fifty nine head of good-grade heavy slaughter lambs were also moved by the pool for \$15 and \$16 per cwt. Two hundred and thirty ewes made up the balance of the pool, selling from 50 cents to \$2.50 per cwt., depending on quality.

The sheep offered by the pool all were purchased by Valley Livestock Marketing Association of Dixon, Calif., on orders from packers and feeders.

County Extension Agent Oris Rudd estimates that the lamb pool means from \$1.75 to \$2 per head more money to the grower on fat lambs than alternative marketing methods available can provide.

He cites one or two examples where local fat lambs could have been shipped early through the Klamath County pool at \$20.50 per cwt., but were trucked instead to a Klamath Falls auction yard and sold for as much as \$3 per hundredweight below the pool price.

Other heavy lambs were held past their prime and sold through the local pool for \$4.50 per hundredweight below early pool price. Assuming as much as \$1 per head freight to Klamath Falls, the pool could have made as much as \$5.50 per hundredweight for the growers on the very early lambs, he said.

The picture for feeder lambs is not quite so rosy, with pool prices sometimes below private offerings. This points up two or three things, said Rudd. One is that growers need to continually improve efforts toward getting a higher percentage of fat lambs. They must also pay closer attention to marketing lambs when they're ready to go and not try to hold past the peak to get a few more pounds. Thirdly, the pool needs to work closely with the buyer and pool members to assemble feeders more uniformly in order to attract buyer interest.

This latter job could mean adjustments in breeding and management programs among pool members.

A total of 50 growers used the pool. Number of sheep sold by individual growers varied from two or three head up to more than 300.

Seventy eight sheep producers signed with the wool pool but only 48 took advantage of the lamb pool, Rudd said. Two range sheepmen took advantage of the pool to sell small lots.

While there are weak points in the lamb pool operation, it still offers the best-known method for marketing lambs. Whether a 11 growers support the pool or not, its existence in the county means flock sheep producers in the lambs are worth more money county, if all took advantage of it.

than if no pool existed. It is noteworthy that the 3,201 lambs marketed through the pool represent a little less than half of "farm flock" lambs available in the county for market, Rudd said.

He estimates that the pool brought in an extra \$3,200 on fat lambs sold through the pool over alternative marketing methods.

Using pool figures, a conservative estimate would indicate the lamb pool to be worth from \$7,000 to \$8,000 to the 70 bonafide farm flock sheep producers in the county, if all took advantage of it.

Transfer Savings Cited

SALEM (AP) — Gov. Mark O. Hatfield and Secretary of State Howell Appling Jr. Saturday said money would be saved transferring machine accounting services now provided by the Department of Finance and Administration to the Department of State.

Their release said the transfer would permit elimination of one position in each office and a savings of more than \$26,000 in machine rentals. It would require legislative authorization.

Hatfield said the new arrangement would continue present service, while permitting the department to concentrate on development of recommendations for improved accounting procedures.

The "proposed consolidation would eliminate wasteful duplication and permit improved utilization of electronic equipment," Appling said.

Judges Elect Klamath Man

PORTLAND (AP) — The new president of the Circuit Judges Association of Oregon is Judge Edward C. Kelly of Medford. He was elected to succeed Judge Edward O. Howell of John Day.

Serving with Judge Kelly will be judges Alan F. Davis, Portland, vice president; George A. Jones, Salem, secretary-treasurer; and David R. Vandenberg, Klamath Falls, and William Wells, Pendleton, members of the association's executive committee.

COMMITTEE MIFFED

PITTSBURGH, Pa. (AP) — The Pittsburgh Progress Committee Wednesday called off its plans for a week-long dedication in June of the city's new \$22 million arena. The committee, miffed by a work stoppage by 300 union craftsmen, that has delayed completion of the arena, is going out of business.

SUMMER BEGINS

BUENOS AIRES, Argentina (AP)—The Argentine summer began Wednesday with a high reading of 94 Fahrenheit.

Merry Christmas to All

May Santa bring to you, our many friends and customers, a very Happy Holiday!

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with many thanks for your loyalty and patronage during the past year

We are very happy indeed to take this opportunity to tell you how much we appreciate the privilege and pleasure of serving you. It's our sincere wish that Santa brings you just what you're hoping for and that life holds many joyous occasions in store for you and all those who are dearest to you!

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BOB ANDERSON	DOUG CLEMENT	CHARLIE MILLER
BILL HARLAN	BEA NETT	GENE DUFFY
MARILYN DUNN	BILL GLIDEWELL	MILDRED PEPPERS
KEITH RUCONICH	JOHN TAYLOR	
FAY HOGAN	BETTY HUDSON	

Dick Hicks

Norman Duffy