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The

**PUGET
SOUND**

CHEMIST

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

FEBRUARY, 1952



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PUGET SOUND CHEMIST

The **PUGET SOUND** **CHEMIST**

Published by the Puget Sound Section of the American Chemical Society

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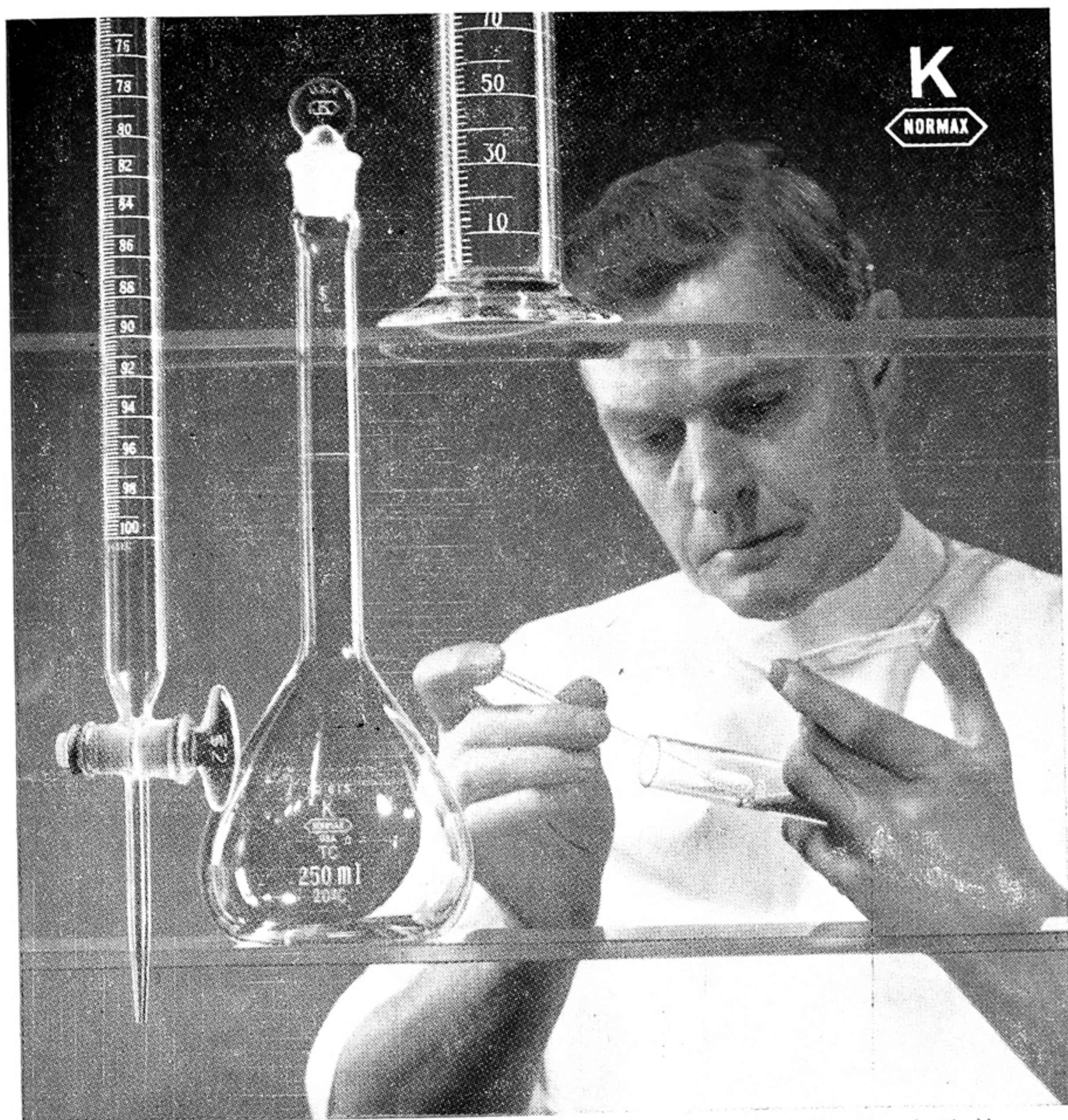
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PUGET SOUND CHEMIST

FEBRUARY MEETING

**PUGET SOUND SECTION
OF
AMERICAN CHEMICAL SOCIETY**

TIME

FRIDAY, FEBRUARY 15th, 1952, 8:00 P. M.

PLACE

SEATTLE, 131 BAGLEY HALL, UNIVERSITY OF WASH.

SPEAKER

PROFESSOR GEORGE JURA

OF

UNIVERSITY OF CALIFORNIA

SUBJECT

PHASE TRANSITION IN ADSORBED LAYERS

FEBRUARY SPEAKER

We were unable at press time to obtain the biography of Dr. George Jura. However, we can state without fear of contradiction and without any authority

whatever that he an outstanding worker in the field of surface chemistry.

Special arrangements were made by Dr. Cross with Shell Development Company in order that we might have the privilege of hearing Dr. Jura.

DON'T FORGET !!

REGIONAL MEETING IN CORVALLIS IN JUNE

GET YOUR PAPERS READY

**MARCH MEETING OF
Puget Sound Section of A. C. S.**

WILL BE A

Joint Meeting with A.I.Ch. E.

IN

TACOMA

HELPFUL HINTS TO THE EMBRYO INDUSTRIAL CHEMIST

(Reprinted from Chemunications)

All chemists should know how to cope with fire in the laboratory. Obtain a four liter beaker, preferably cracked, fill it with benzene, and apply a Bunsen burner. Some of our more forward looking young men have already tried this in elementary organic laboratory work, but it is an experience that will leave the uninitiated more in the normal chemical image (i. e. completely bald).

Many stubborn reactions which cannot be made to go under ordinary conditions yield to a simple trick. Arrange your anatomy in a comfortable position before the flask and fall asleep. One of two things will happen. The reaction proceeds with extreme rapidity, automatically letting you know you can scrape your product off the ceiling, or the boss walks in and you don't have to worry about the reaction any more.

Laboratory sinks should be equipped with special traps to catch the yields you discard with the wash liquid. This is the only useful part of the product, so you might as well save it.

Always break glassware before you wash it. If in doubt as to whether it is going to break, the young chemist can make sure by depositing it in the glass can with some vigor. If it does not break, wash it. It will surely do so then.

Collegiate practice calls for using a 25 percent excess of reagents over the amount called for to insure the yields specified by the instructor. This is frowned on in professional work. In order to maintain our ethics at a high plane, we suggest an excess of 50 per cent. After all, the reagents are being paid for with someone else's money.

Report writing is an art. Reports should be so simply written that even the boss cannot understand them.

Never commit yourself, especially in writing. Phrases such as "a tendency is apparent," "we feel," "it is apparent" (especially when you are not clear at all about what happened), all help to avoid getting out on a limb.

Pick the man you work for with care when you can. A neophyte working for his uncle who is chairman of the board is obviously going places.

Always keep plenty of equipment set up on your bench. The more it appears that it is in operation, the better. The boss may come around any week now to see what's going on.

Leave all dirty equipment in and around the sink for at least three weeks. Someone else might want to use the sink and wash some to get near it.

Get your name on as many reports, sketch sheets and publications as possible. It is not necessary to do any of the work to do this. Merely offer to proof-read and then add your own name. The author will likely never notice it, even after printing. He's probably much more bored with the subject than you were.

—J. H.

The 1952 Officers of the Washington-Oregon Section of the **AMERICAN INSTITUTE OF CHEMICAL ENGINEERS**

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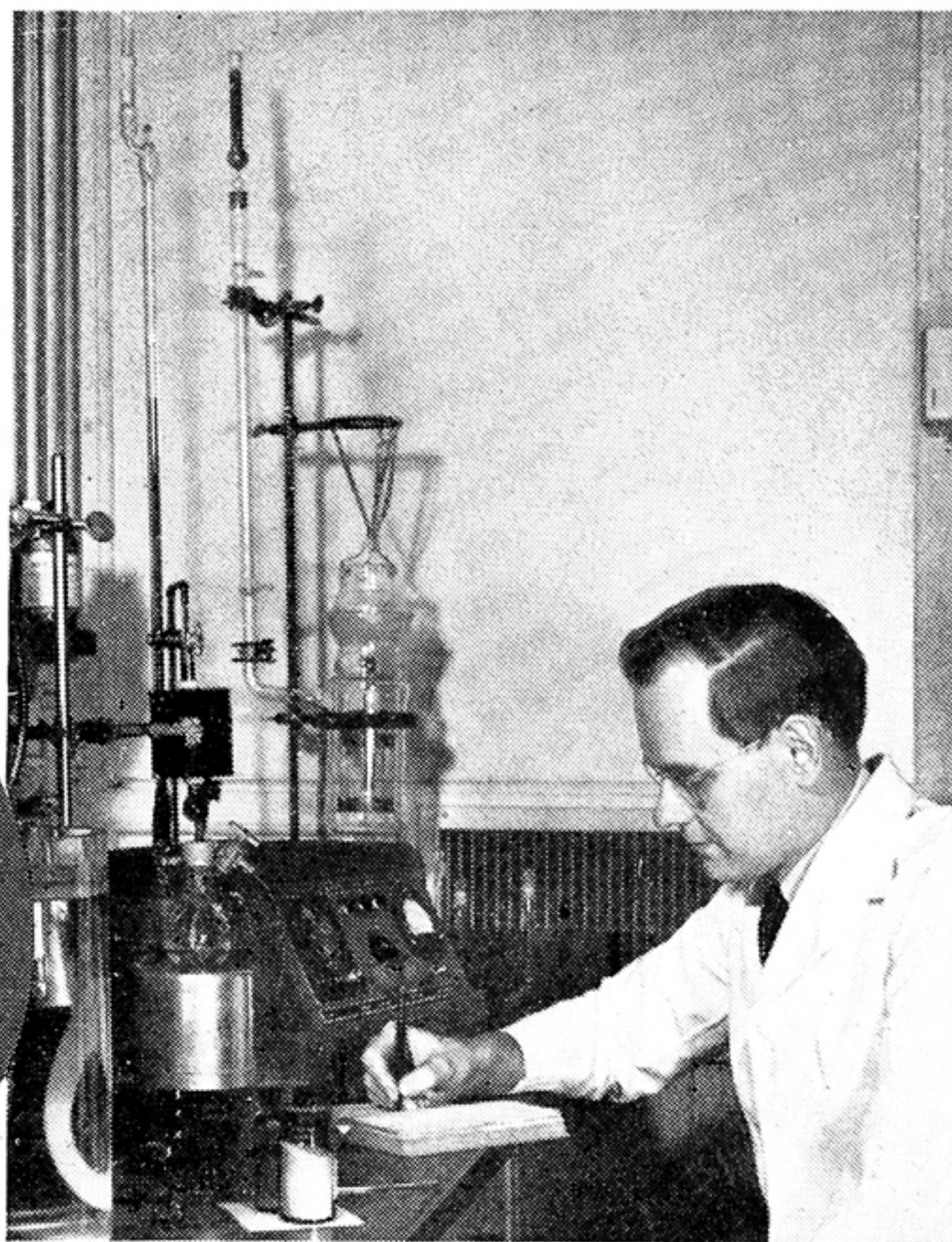
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Significantly, SODIUM TARTRATE MERCK, Reagent, was the chemical used in this investigation. Write us today for complete details on this new procedure.

1. Neuss, J. D., O'Brien, M. G., and Frediani, H. A, *Analytical Chemistry* 23, 1332 (1951)

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STATEMENT BY C. S. MUNSON

Demands for chemicals to be used in rearmament will rise substantially as a greater flow of defense dollars is released in 1952, while demand from non-rearmament sources will be at least as high as in 1951.

The chemical process industries during 1951 announced the largest expansion program in their history, estimated at roughly \$4 billion in plant and equipment. This new capacity will be coming into production throughout 1952 and well into 1953. It includes all types of chemicals and chemical derivatives, ranging from basic materials like chlorine and soda ash to such end products as synthetic fibers, pesticides and drugs.

Sales of chemical companies will reflect part of these increase in 1952. For the industry as a whole, dollar value of sales should run 10 to 15% ahead of 1951, while individual companies may show increases of twice this figures.

How much of these gains will find their way into net profit, however, is a question. Wages, and in some cases raw material costs, will continue to rise, and most chemical producers as a result of a normal growth trend, already find themselves paying excess profit taxes. But whatever the trend in profits, the industry can be relied upon to continue its traditional search for new products and better and cheaper processes.

The record output in 1951 and projected sharp expansion under way evidence the fact that chemicals now rank with steel and aluminum as the basic raw materials for defense. In addition, end product use of chemicals in rearmament also is soaring greater use of synthetic fibers; synthetic rubber; plastics; medicines; and direct munitions products.

Significant recognition of the greater role of chemicals was accorded in the DPA list of highest priority for rapid amortization. Three of the ten production facilities accorded highest priority in the DPA expansion program are basically chemical processes: sulfur; nitrogen;

and aviation gasoline. All of the ten (ores, machine tools, pig iron, aluminum metc.) require numerous chemical products in their manufacturing processes.

The expansion program fostered by DPA rapid amortization certificates includes the following proposed investments in new chemical and chemical processing facilities: (Figures in thousands of dollars)

Sulfur	8,259
Alkalies and Chlorine	230,614
Industrial inorganic chemicals, etc.	404,808
Cyclic, coal-tar, crudes	11,364
Plastics, mats & elastamers, exc. synthetic rubber	8,008
Synthetic rubber	11,680
Synthetic fibers	150,450
Explosives	2,852
Industrial organic chemicals, NEC	162,963
Drugs and medicines	83,683
Inorganic color pigments	2,705
Misc. chemicals including industrial chemical products and preparations	94,645
Petroleum refining	620,458

Essential and far-reaching as is this expansion program, it has been often hampered by inadequate allocations of structural steel and other construction materials. Energetic and unceasing representations have been required to establish that chemicals are basic raw materials and not just processing supplies.

Chairman, Manufacturing Chemists' Association.

Alf, the London butcher, hung a huge sign in front of his shop, reading "We are sausage purveyors to his majesty the King."

The next day, his rival across the street hung out a larger sign, reading: "God save the King."

She was just an opticians daughter—two glasses and she made a spectacle of herself.

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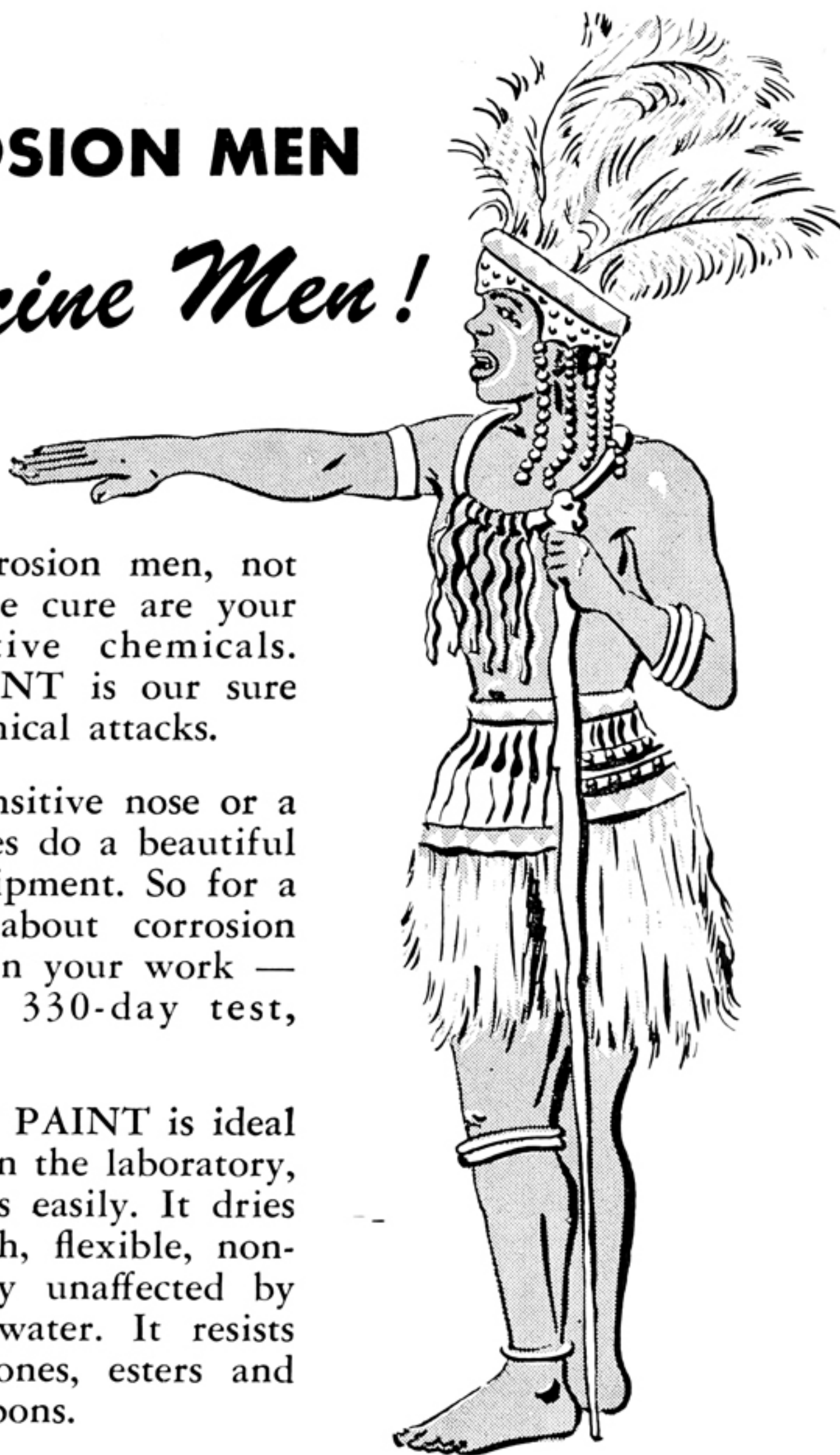
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NEW CHAIRMAN



C. V. SMITH

C. V. Smith, Chairman of the Puget Sound Section of A.C.S., is a partner in Northwest Laboratories, Seattle. Previously, he has been active as program chairman (chairman elect). As editor of the Puget Sound Chemist during 1949 and 1950 he assisted materially in saving the publication from financial disgrace and turned it over to the executive committee as the official section publication in solvent condition.

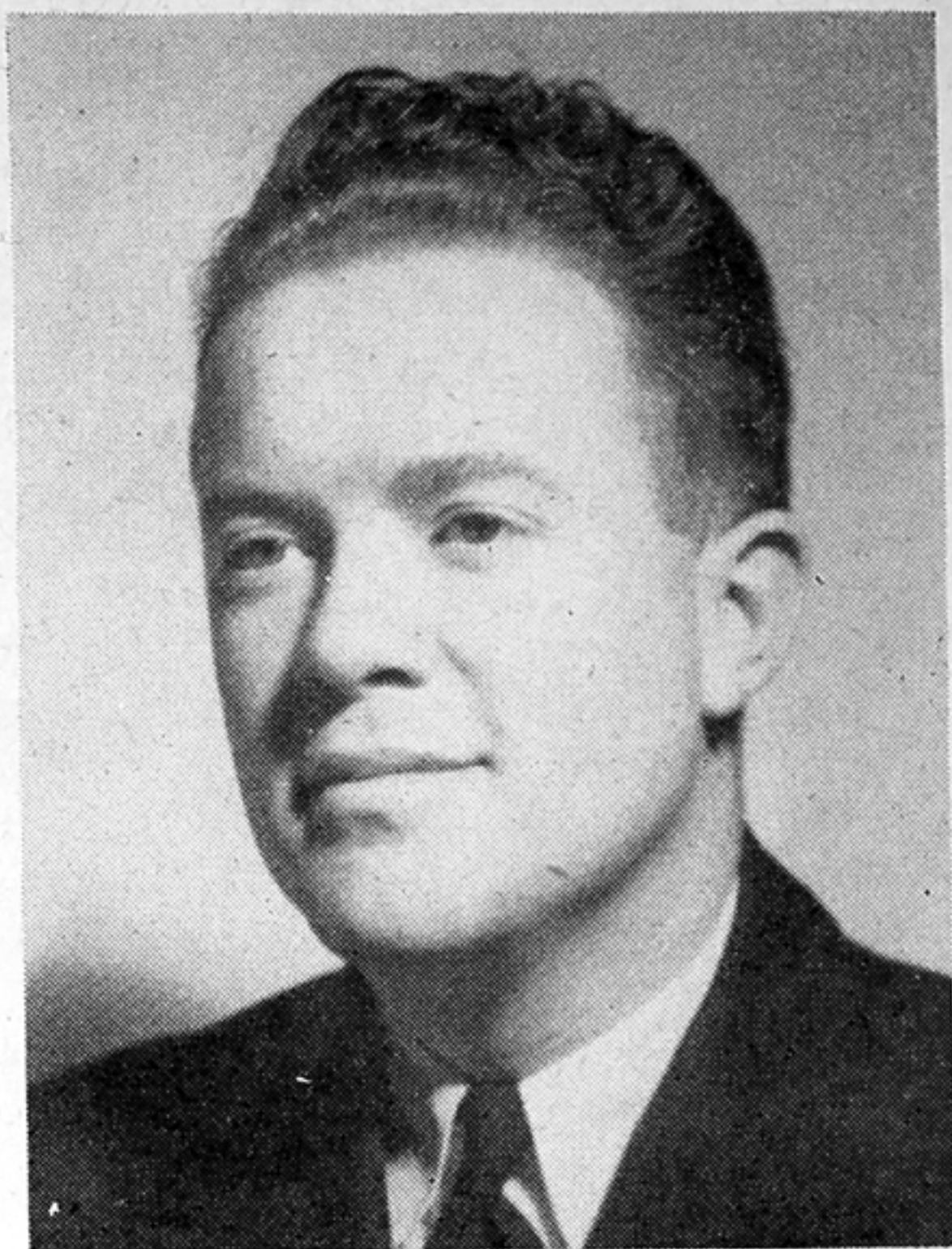
Prior to locating in Seattle in 1946, Smith was associated with the Univis Corporation, Dayton, Ohio as research director and prior to that time with Norton Company and Du Pont research departments.

He is a graduate Chemical Engineer from the University of Illinois 1933 and 34 and is registered professionally in Ohio and Washington. He is a member of the N.S.P.E., A.I.Ch. E and Knight Templars' Educational Foundation. Currently he is Chairman of Bothell School District No. 46 Citizens Advisory Committee and is also a member of the National Congress of Parents and Teachers.

The noblest of all animals is the dog and the noblest of all dogs is the hot-dog.

It feeds the hand that bites it.

NEW TREASURER



ROBERT PAQUETTE

Robert G. Paquette was born February 5, 1915 in Chippewa Falls, Wisconsin and moved to Seattle in 1918. He attended O'Dea High School, and entered the University of Washington in 1932, receiving the B. S. degree in chemistry in 1936 and the Ph. D. in physical chemistry in 1941. His research was done under the direction of Professor H. V. Tartar on conductances and densities of solutions of colloidal electrolytes and related compounds.

In June 1941 he was called to active duty in the Naval Reserve and served until 1945 at the U. S. Naval Academy, Maryland, teaching chemistry, electrical engineering, mathematics, and seamanship. Before returning to inactive duty he had attained the rank of Lieutenant Commander. In December 1945 he became a research chemist at the Plywood Research Foundation in Tacoma, working on the chemical utilization of wood wastes. In November 1946 he became a research chemist at the University of Washington to work on a problem of dissipation of natural fog under the direction of Professor T. G. Thompson and the sponsorship of the Army Chemical

(Continued on page 16)

More chemists are using

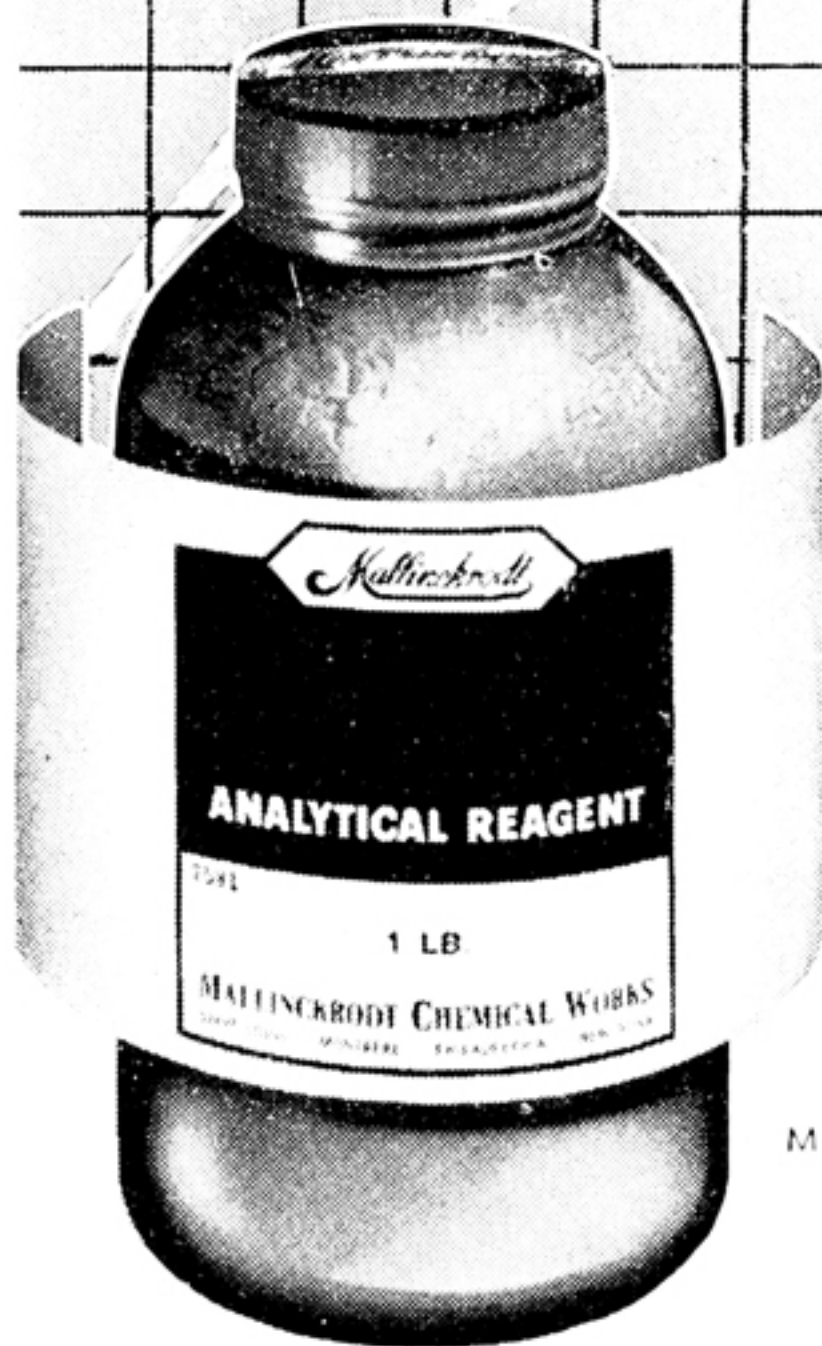
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ONE MAN'S MEAT

AUSTIN, Tex., December 8— The Scientific support for the ancient adage, "what is one man's meat may be another's poison," was advanced today by Professor Roger J. Williams, world authority on vitamins, at the Seventh Southwest Regional Meeting of the American Chemical Society.

Research now in progress at the University of Texas indicates that, in general each person's vitamin needs are an individual problem based on biological inheritance, according to Dr. Williams, head of the university's Biochemical Institute.

"Genes, the carriers of inheritance, determine which vitamins are needed and how effectively we use them," Dr. Williams asserted.

"Different plants and animal organisms need different assortments of food elements, and within each species there are individual genetic differences as to the amounts needed.

"Some people are born with metabolic machinery which demands that they get in their food throughout life relatively large amounts of particular nutrients. When they eat unwisely or, in extreme cases, even when they do follow good nutritional practice, they may develop deficiencies. These deficiencies may cause all sorts of diseases the origin of which has been obscure up to now.

"Certain people are born with very rugged constitutions. They can eat almost anything and everything and get away with it. Even though they do not follow the rules of good nutrition, they may still live to be 100. The genes with which nature has endowed them, make possible the ready utilization of food; the catalysts that work within their bodies are very effective.

"People who are likely to become alcoholics are individuals who genetically are hard to satisfy so far as their dietary needs are concerned. As soon as they begin violating the rules of good nutrition by drinking quantities of alcoholic liquor, deficiencies develop; these deficiencies

stimulate craving for alcohol and a vicious cycle is developed. People who get everything that they need nutritically never become alcoholics.

"That the consumption of alcohol is increased by nutritional deficiency was demonstrated first with experimental animals, rats and mice. It was found that animals on the best diets do not drink alcohol, and those on deficient diets always do. Furthermore, animals which are on deficient diets and drinking alcohol copiously stop immediately when their deficiencies are met.

"The study has been extended to human beings who have an intense craving for alcohol, and many have had their craving completely abolished so that they need not drink in an uncontrolled manner any longer. Even the taste of liquor does not act as a compelling force to make them drink more.

"It is thought that mental diseases in general probably belong in the same category as alcoholism. Certain people are born with metabolic machinery which is susceptible to damage and likely to become deficient, as a result of mental stress. Emotional difficulties and frustration influence one's hormonal system; these impairments may cause nutritional deficiency in certain individuals. Some individuals, however, sometimes called 'thick skinned', have hormonal systems which are not really disturbed; they are efficient and function whether nutrition is ideal or not. Such individuals never have mental disease.

"The possibility of treating mental diseases nutritionally is a real one but needs to be explored extensively and thoroughly. At present little is known about mineral, vitamin, and protein needs of individual people. To date most of the emphasis is in finding the needs of hypothetical 'man', a being who does not exist. Thiamin has been investigated to some extent in connection with individual needs; some individual people need at least four times as much as others. This is one of the several vitamins that is important in connection with al-

(Continued on page 18)

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SETTING THE PACE IN CHEMICAL PURITY SINCE 1882

NEW FILM DEVELOPED

WILMINGTON, Del., — An entirely new film with unusual strength, heat resistance, and insulating qualities, has been developed by the Du Pont Company through one of its fundamental research programs. Trade-marked "Mylar", it is a polyester film, similar in appearance to cellophane, but with distinct properties which appear to make it suitable for a series of new industrial uses.

It is being produced experimentally by Du Pont's Film Department on semi-works equipment in the company's Yerkes Research Laboratory in Buffalo, N. Y. While the film is being evaluated in a number of industrial fields, it is expected to be several years before it is generally available commercially, and even longer before its full possibilities can be developed. Only limited quantities can be made with present equipment.

Studies indicate it will find major uses for which cellophane and other commercial films are not suitable. The most promising immediate field appears to be electrical insulation. After additional research and development, "Mylar" is likely to go into the industrial tape field to widen the use of film-based tapes. It is also expected to be combined in laminations with other materials. Additional uses, which may be years away, include packaging, collapsible tubes, and lightweight storm windows.

"Mylar" polyester film is a sparkling, transparent, colorless film which is very tough and durable. It retains its flexibility at very low temperatures at which other films become brittle. It has high dimensional stability under heat and humidity changes, and it has good resist-

ance to attack by chemicals.

Besides having most of the best properties of other commercial films, "Mylar" has several unique properties. One is high strength, from two to eight times that of other commercial films. This makes possible thinner gauges, as fine as a quarter of one-thousandth of an inch, or about one-third as thick as the thinnest commercial films produced by Du Pont in the past.

A second property is its ability to retain dimensions and properties through a wide range of heat and cold. A third, and rather technical, property, is intermediate electrical polarity. This permits "Mylar" to store electrical energy, a requirement for use in condensers. Also, it has high dielectric strength, or insulating power, without excessive power loss, properties required for conductor insulation. The electrical, physical, and chemical properties of "Mylar" will be described in a paper by Ralph C. Krueger and Arthur B. Ness, of the Du Pont Company's Film Department was presented at a meeting of the American Institute of Electrical Engineers at the Hotel Statler in New York.

It is the combination of properties which makes "Mylar" polyester film appear attractive. For example, insulation for electric motors requires mechanical strength, long-term resistance to heat, chemical inertness, and high dielectric strength—all of which the film has. Tests indicate that, for this use, "Mylar" is superior to all existing materials except mica, which is fragile, high-priced, and in short supply.

Similarly it may be used as insulation

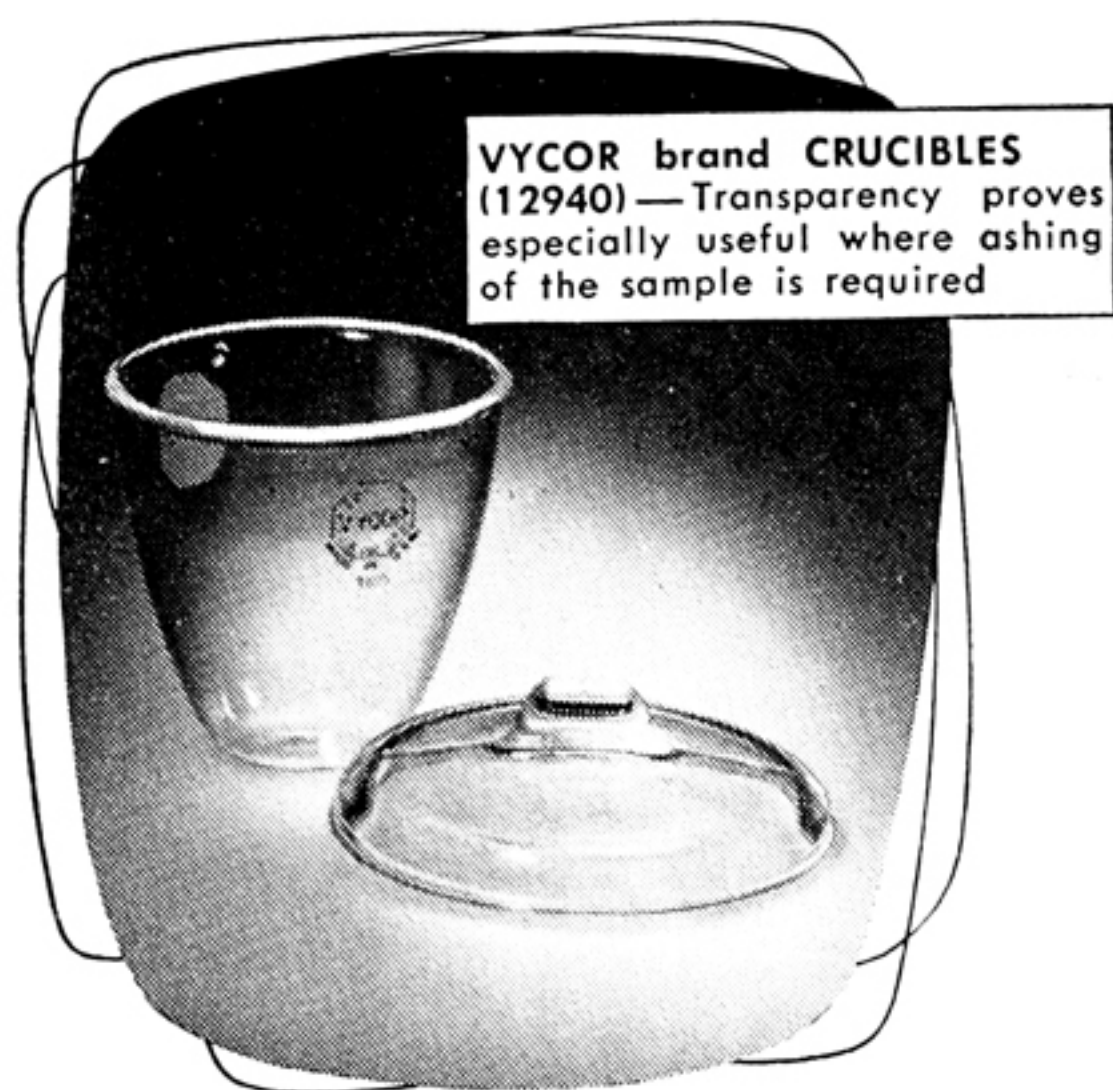
(Continued on page 16)

G. L. PUTNAM

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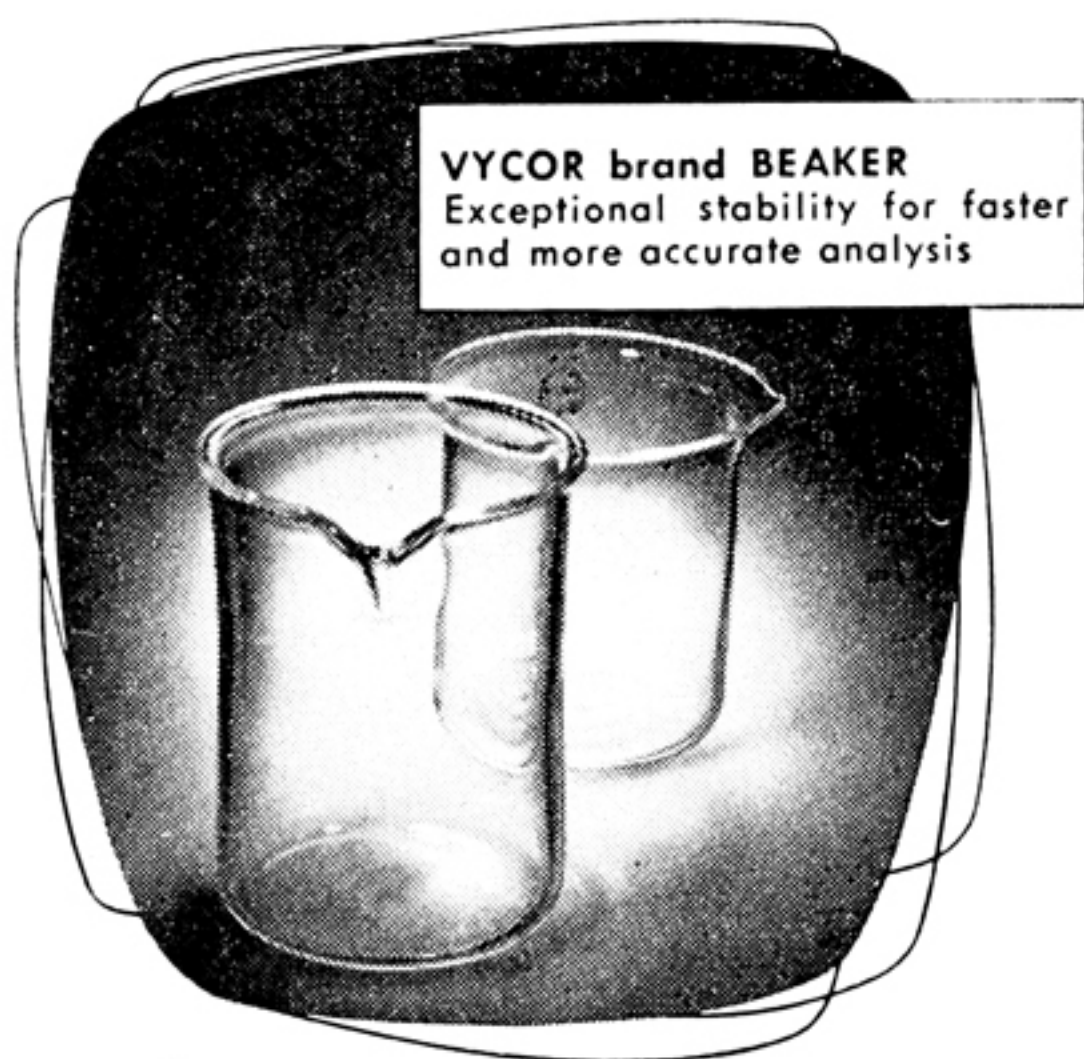
ing and faster analysis without fear of breakage.

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NEW FILM (Continued)

in capacitors or condensers. "Mylar" meets the requirements of high dielectric strength, thinness without fragility, and reasonably high dielectric constant. In this field, it may be used in telephones, radios, fluorescent light starters, electronic devices, and the like.

"Mylar" now sells for \$3 to \$4 a pound, depending on thickness. Reduction in price, like widespread use, must await large-scale production with its consequent reduction of costs. In course of time, however, lower prices may be expected. When Du Pont started to make cellophane in 1924, the average selling price was \$2.65 a pound, and today, with an improved product, it is about 57 cents a pound.

"Mylar" is a condensation polymer obtained from ethylene glycol and terephthalic acid. Thus, it is chemically similar to Du Pont's newest textile fiber, "Dacron" polyester fiber. "Dacron" is spun whereas "Mylar" is cast in continuous sheets. It is also chemically similar to Du Pont's recently announced polyester base for photographic film of superior toughness.

Groundwork for the development of "Mylar" polyester film was laid by the late Dr. Wallace H. Carothers, famed Du Pont research chemist, in his fundamental research work which led to nylon. However, "Mylar" is not chemically related to nylon.

Polyesters were among the first of the condensation polymers investigated by Dr. Carothers; but rather than continue this line he decided to devote his efforts to polyamides — a course which led to nylon.

British research chemists, after studying his published works, undertook further study of polyesters. Their work led to development of a polyester fiber now sold in England under the trade-mark "Terylene". Independently, Du Pont researchers had undertaken a search for other useful condensation polymers expanding the early work of Dr. Carothers. Later, Du Pont learned of the British research and negotiated the purchase of

patent rights for the specific polymer selected for development.

Further research by Du Pont resulted first in "Dacron" polyester fiber, and work by Du Pont scientists in somewhat different directions produced the photographic film base and "Mylar". Further applied research to develop the full potentialities of all three products is continuing and is expected to go on for many years.

Robert Paquette (Cont.)

Corps. Since the conclusion of this project in August 1949, he has been a research associate in the Department of Oceanography on a project having the sponsorship of the Office of Naval Research. Some of his principal interests on this project have been the measurement of tidal currents in Puget Sound and instrumentation for all types of oceanographic measurements.

He married Lois A. Smith, a chemistry graduate from the University of Washington, in 1941. They have three children.

Dr. Paquette's hobbies are fishing, woodworking and photography when he has a little time to indulge in them.

JOINS STAFF OF DU PONT

Wilmington, Del. — Dr. William A. Doerner, formerly of Portland, Ore., recently joined the research staff of the Du Pont Company's Chemical Department at the Experimental Station here.

He spent two years as an undergraduate at the University of Portland and completed studies, majoring in chemical engineering, at the Oregon State College from which he received the degree of bachelor of science in 1942. From 1942 to 1946 he served in the U. S. Navy, engaging during his last year of service in research and development work for the Navy's Bureau of Ordnance.

In 1946, he resumed his academic work at the University of Michigan where he majored in chemical engineering, and in 1947 he received the degree of master of science. In June, 1952 the degree of doctor of science will be conferred on him.

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FEBRUARY, 1952

Western Power & Fuel Outlook

The seemingly inexhaustible power and fuel resources for domestic, commercial, and industrial users in the western states have been subjected to strain during the few years following the war. Several factors are responsible, namely (1) rapid population growth, (2) expansion and diversification of industry, and (3) increasing mechanization of farm and factory operations.

Electric power generating facilities have increased at a steady and rapid rate since the middle of 1946, but the relation between demand and supply is at best balanced with a small margin of safety. The situation in the northwest is particularly pressing, in spite of the expansion of the Columbia River system. At the peak of the postwar boom in 1948, a general, though brief, power shortage existed. Since then, the outlook has improved and appears promising. The number of hydro-generating units continued to increase, but there is a gradual shift from water power to steam plants. In spite of the increased facilities, rates are on the upward trend.

Natural gas plays a more important role in the fuel economy of the West than in any other part of the country. The main sources have been the dry wells of the Rio Vista fields and oil well gases in California. Supplying 22% of the total energy demand of the West, these wells are gradually depleted. Recently, construction for long distance pipe lines have been completed or contracted to bring gas from the rich fields of Texas. Pending development of Canadian gas fields, pipe lines across the border to supply the northwest are proposed. Even with increasing importation, the balance between supply and demand is tight; curtailments to interruptible service users persist. Decrease in local reserve and heavy investment requirements for importation will necessarily bring rate increases.

Except during the two wars, western petroleum output generally exceed local requirements. Increase in reserve has

been keeping pace with demand. With improvement in refining technology, the western oil industry should be more than able to meet the fluctuating character of demand for the various petroleum products. The long run outlook is bright.

Because of the importance of other sources of energy, coal is not a major industrial fuel in the west. However, large coal resources exist, but utilization is limited either by low rank or distance of the deposits from industrial centers. The major users of coal in the west are coking plants and railroads. So long as petroleum and natural gas are available, there is little likelihood for increasing use of coal in the West.

Extensive steam power generation from western coal appears to be destined for the distant future.



One Man's Meat (Cont.)

eccholism. A person who has a high thiamin need, for example, is one who is more likely to become an alcoholic for this reason.

"An extensive study of 'individual metabolic patterns' in the University of Texas laboratories confirms the idea that individual needs are different and that there is a scientific basis for the old adage, 'what is one man's meat may be another's poison.'"

Professor Williams participated in a symposium on the B vitamins which marked the closing session of the three-day chemical meeting on the campus of the University of Texas.



When teaching a girl to pucker for a kiss, which is better to have her say prunes, peaches, or alfalfa?



"Oh, I'm sorry. I didn't mean to slap your face: I thought you were trying to steal my sorority pin."



A supersalesman is a fellow who can sell a Phi Beta Kappa professor a double breasted suit.

DU PONT AWARDS FELLOWSHIPS

Wilmington, Del., — The award of 75 post-graduate fellowships to 47 universities, and grants-in-aid to 15 universities to "stock-pile" knowledge through the support of fundamental research, was announced today by the Du Pont Company. They are for the 1952-53 academic year.

An authorization of \$510,000 was provided by the company for these and other awards. This is substantially higher than the appropriation of \$405,400 for the present academic year. Most of the increase is for additional grants-in-aid to universities.

These grants are for unrestricted use in the field of fundamental chemical research. The Du Pont awards in recent years have been so successful in furthering this work that the company decided to raise the yearly contribution from \$10,000 to \$15,000 to each of the ten universities which received awards for the present academic year and to make new grants of \$10,000 each to five others. The grants are guaranteed for two years.

The company makes these grants to the universities without restrictions and the institutions themselves decide the lines of research they will follow after receiving the grants. The only stipulation is that the funds must be used for fundamental research—that is, work prosecuted for the advancement of basic scientific knowledge and not for specific commercial objectives. The company emphasized that there shall be complete freedom in the communication and publication of the results of the research supported by the grants.

Institutions which will receive the \$15,000 grants each are: California Institute of Technology, Cornell University, Harvard University, University of Illinois, Massachusetts Institute of Technology, University of Minnesota, The Ohio State University, Princeton University, University of Wisconsin, and Yale University. Institutions which will receive

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the grants of \$10,000 each for the first time are: University of California at Berkeley, University of California at Los Angeles, Columbia University, Northwestern University, and University of Michigan.

The company also continued its support of the Wallace Hume Carothers Research Professorship in Chemistry at Harvard University with a contribution of \$15,000 for the academic year. This professorship, which was established during the past year, enables a different staff professor every year to devote his full time to research.

Also authorized was \$20,000 for continuing the company's membership in the Institute for the Study of Metals, University of Chicago.

Granting of the post-graduate fellowships is a continuation of the company's plan, originated in 1918, to encourage students to undertake post-graduate work in chemistry. It has since been expanded to include other fields of science and engineering. It provides support for pre-doctoral training of students in institutions of higher learning.

It is expected that the program will help maintain the flow of technically trained men and women into teaching and research work at universities and into technical positions in industry.

The selection of candidates for fellowships and the choice of problems on which they are to work are, as in the past, left to the universities which receive the awards. Individuals are under no obligation with respect to employment after completing work under a Du Pont fellowship.

Each of the fellowships provides \$1,400 for a single person or \$2,100 for a married person, together with an award of \$1,200 to the university, for the next academic year. In addition to the awards, the company will pay the tuition of the fellows, thus the entire award to each university will be available to support research and study.

Of the 75 post-graduate fellowships to be awarded, all of which are pre-doctoral, 45 are in chemistry, 15 in chemical engi-

neering, five in mechanical engineering, four in physics, three in metallurgy, two in biochemistry, and one in biology. Of these, one each in physics, metallurgy, and biochemistry is newly established. The others were awarded for the current academic year and are offered again for the 1952-53 year.

Post-graduate fellowships in chemistry were awarded to Brown University, California Institute of Technology, Carnegie Institute of Technology, Columbia University, Cornell University, Duke University, Harvard University, Iowa State College, The Johns Hopkins University, Massachusetts Institute of Technology, Northwestern University, The Ohio State University, Oregon State College, The Pennsylvania State College, Polytechnic Institute of Brooklyn, Princeton University, Purdue University, Rutgers University, Stanford University, State University of Iowa, Syracuse University, Washington University (St. Louis), Western Reserve University, Yale University, University of California at Berkeley, University of California at Los Angeles, University of Chicago, University of Colorado, University of Delaware, University of Illinois, University of Indiana, University of Kansas, University of Maryland, University of Michigan, University of Minnesota, University of Missouri, University of Nebraska, University of North Carolina, University of Notre Dame, University of Pennsylvania, University of Rochester, University of Texas, University of Virginia, University of Washington (Seattle), and University of Wisconsin.

Post graduate fellowships in chemical engineering were awarded to Carnegie Institute of Technology, Columbia University, Cornell University, Massachusetts Institute of Technology, the Ohio State University, Princeton University, Yale University, University of Delaware, University of Illinois, University of Michigan, University of Minnesota, University of Pennsylvania, University of Tennessee, University of Texas, and the University of Wisconsin.

Fellowships in mechanical engineering

were awarded to Columbia University, Lehigh University, Massachusetts Institute of Technology, The Pennsylvania State College, and Purdue University.

Fellowships in physics were awarded to the Massachusetts Institute of Technology (new), The Ohio State University, University of Virginia, and Yale University.

Fellowships in metallurgy were awarded to Carnegie Institute of Technology, Lehigh University, and The Ohio State University (new).

Fellowships in biochemistry were awarded to the University of California at Berkeley (new) and the University of Wisconsin. One in biology was awarded to the California Institute of Technology.

●

NEW X-RAY DIFFRACTION & SPECTROMETER CATALOGUE

A new 60-page catalogue titled "X-ray Diffraction and Geiger-Counter X-ray Spectrometric Equipment" has been released recently by the Research & Control Instruments Division, North American Philips Company, Inc., 750 South Fulton Avenue, Mount Vernon, N. Y. It is available from their distributor in this area, the Scientific Supplies Company.

In addition to X-ray diffraction, spectrometry and fluorescence analysis, the catalogue covers such components and accessories as tubes, rectifiers and cameras. It also has sections on camera mounting brackets, film illuminators and measuring devices, and monochromators.

A number of pages are devoted to wide range goniometers, fluorescence analysis, universal working arrangements, Geiger tubes, electronic circuit panels, and table model spectrometers.

Considerable space in the new catalogue is devoted to the Philips Electron Microscope. Other data is included on such items as the flat specimen spinner, counting rate computer, special holders, milliampere stabilizer, Weissenberg and Geiger counter Weissenberg cameras, crystal analysis equipment, and thickness plating gauge.

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Information is also provided on applications for X-ray instruments along with typical charts which show how specimens differ when analyzed by this powerful laboratory and production control equipment.

●

The Sultan got sore at his harem,
And invented a scheme for to scare 'em;
He caught him a mouse
Which he loosed in the house
(The confusion is called harem-scarem.)

●

A wire fell across Main Street during a storm. People were afraid to touch it. The city editor assigned two reporters to the story.

"One to touch the wire", he directed,
"and the other to write the story."

●

The young chap asked his blind date:
"Do you shrink from kissing?"

"I'd be nothing but skin and bones if I did," was her answer.

FINANCIAL STATEMENT OF THE PUGET SOUND SECTION AMERICAN CHEMICAL SOCIETY for the year 1951

Income from Allotments		\$ 878.00
Income from Dinners		4.24
TOTAL INCOME		\$1,019.74
OPERATING EXPENSES		
Mailing	\$ 97.09	
Nominating Committee	\$ 1.35	
Membership Committee	\$ 2.00	
Speaker expense (tours)	\$ 291.49	
Refreshments	\$ 52.11	
Program Committee	\$ 3.00	
Engineering Council	\$ 50.20	
Secretary's Expense	\$ 14.33	
High School Students' Day	\$ 7.02	
Chairman's Expense	\$ 50	
TOTAL EXPENSE		\$ 519.09
NET INCOME TO RESERVE		\$ 500.65

FINANCIAL STATEMENT OF THE PUGET SOUND CHEMIST for the year 1951

Income from Advertising	\$ 1,838.49	
Income from Advertising (Receivable)	\$ 234.08	
Income from Subscription & Regional Meeting	\$ 63.00	
TOTAL INCOME		\$ 2,235.57
OPERATING EXPENSES		
Printing Expense	\$ 2,001.25	
Editor's Expense	\$ 26.92	
Mailing Expense	\$ 89.08	
Treasurer's Expense	\$ 2.83	
TOTAL EXPENSE		\$ 2,120.08
NET INCOME TO RESERVE		\$ 115.49

BALANCE SHEET

Cash on hand, Puget Sound Section	\$ 1,274.02	
Cash on hand, Puget Sound Chemist	\$ 143.99	
TOTAL CASH ON HAND		\$ 1,418.01
Accounts Receivable, Puget Sound Chemist	\$ 234.08	
Bills Payable, Puget Sound Chemist	\$ 3.02	
NET RESERVE IN ADDITION TO CASH ON HAND (P.S. CH.)		\$ 231.06
Bills Payable, Puget Sound Section	\$ 9.00	
TOTAL ASSETS, Puget Sound Section		\$ 1,265.02
TOTAL ASSETS, Puget Sound Chemist		\$ 375.05
GRAND TOTAL ASSETS		\$ 1,640.07

A woman invited several friends to a mushroom steak dinner. When Nora, her maid, opened the can of mushrooms, preparatory to making the sauce, there was a slight scum on top.

The time being short, the lady suggested, "Give the dog a little and if he eats it, it's probably all right." Since the dog liked it and begged for more, the dinner was finished.

After the guests had enjoyed their dinner, Nora came in white-faced, with the dessert and whispered tragically to her employer, "Ma'am, the dog's dead."

There was only one thing to do.

Sometime later, when eight people were lying around in various stages of recovery and the doctor had departed with his stomach pump, the lady wearily asked, "Nora, where's the poor dog?"

"Out on the front steps, Ma'am, where he fell after the car hit him."

●
The growth of the girdle business has been due to a widespread development.

●
Said the cation to the anion, as they paused beside a water molecule, "Let's go the poles and volt."

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SOME UNUSUAL DEFINITIONS

Diplomat: A man who remembers a lady's birthday but forgets her age.

Expert: An ordinary man, away from home, giving advice.

Friend: One who dislikes the same people that you dislike.

Genealogist: One who traces back your family as far as your money will go.

Gentleman: A man who can disagree without being disagreeable.

Intuition: The strange instinct that tells a woman she is right, whether she is or not.

Pessimist: One who, when he has the choice of two evils, chooses both.

Politician: An animal who can sit on a fence and yet keep both ears to the ground.

Pedestrian: A man who has a car and a grown-up daughter.

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