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**CHEMIST**

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

OCTOBER, 1950

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

**Published by the Puget Sound Section  
American Chemical Society**

Monthly from September through June. Non-member subscription rates, \$1.50 year.  
For non-receipt of copies or change of address, notify Puget Sound Section Secretary.  
The Puget Sound Section of A. C. S. is not responsible for statements or opinions  
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Permission to reprint is granted to all A. C. S. publications.



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**No. 7**

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# October Meeting

Puget Sound Section

**AMERICAN CHEMICAL SOCIETY**

*Time*

**Wednesday October 25, 1950, 7:45 p. m.**

*Place*

**Seattle, 131 Bagley Hall, University of Washington**

*Speaker*

**DR. J. L. McCARTHY, University of Washington**

*Subject*

**THE PROBLEM OF LIGNIN**

**Refreshments and Social Hour After Meeting**

## **OCTOBER SPEAKER**

Dr. Joseph L. McCarthy was born in Spokane, Washington, October 19, 1913. He attended the University of Washington to secure his B.S. in Chemical Engineering in 1934. M.S. degree was taken at the University of Idaho in 1936, and Ph.D. at McGill University in 1938, where he was Sessional Lecturer and Research Fellow from 1938-41.

Outside of one year spent with Fraser Companies, Ltd., during 1940-41, Dr. McCarthy has been with the University of Washington, distinguishing himself with his work in cellulose, lignin, and wood chemistry. He served as a Research Associate Chemist from 1941-42, an Instructor during 1942-43, Assistant Professor, 1943-47, and is now an Associate Professor at the University.

He is a member of the Society of Chemical Industries, Technical Association of Pulp and Paper Industries, Canadian Pulp and Paper Association, American Institute of Chemical Engineers, as

well as the American Chemical Society, in which he has served as Vice-Chairman, Chairman and Secretary of the Puget Sound Section. One of his closest associates is a rugged pipe, and "Joe" with all his responsibilities is never too busy to give a cheerful greeting to friends or advice to students.

\* \* \*

## **SEPTEMBER SPEAKERS SUMMARY**

**Recent Developments in  
Fluorine Chemistry**  
Professor George H. Cady

During the past few years there has been a good deal of interest in the chemistry of fluorine, caused primarily by the atomic energy program. Uranium hexafluoride was required in fairly large amounts, and was made from fluorine.

Another line which has received much attention is the study of the carbon compounds of fluorine. We may expect to see a number of interesting develop-

## EMERGENCY CALL

Dear A. C. S. Member:

Our government has given the A. C. S. an assignment which we cannot discharge without your complete cooperation. The matter is important to each of us and to our country.

The urgency of the present military situation has necessitated a speed-up in plans for completion of the National Scientific Register and has accented the need for obtaining the most complete coverages of chemists and chemical engineers which it is possible to obtain. The National Security Resources Board feels that it must have this information exactly as it has data on amount and grade of our ore reserves. It has asked the A. C. S. to act as its agent in obtaining the names of all chemists and chemical engineers.

In any war which might develop it is probable that our opponents will have the advantage in manpower and that our superiority will come from our greater scientific and technical ability. This means that there must be a broad policy governing proper use of technical manpower.

Since the Puget Sound Section is charged with the responsibility of collecting this information for that part of the U. S. included in the territory of our section, it is, therefore, the duty of each member of this section to send the complete names and addresses of all chemists\* and all chemical engineers\* whom he knows that are *not members* (members are already listed in the National Scientific Register) of either the A. C. S. or the A. I. Ch. E. to our secretary:

JIM C. DRURY

c/o Lyle Branchflower Company  
15th Ave. N. W. and Shilshole  
Seattle 7, Washington.

The territory to be canvassed by this section is all of Washington west of the 120th meridian with the exception of Clarke, Cowlitz and Skamania counties. The 120th meridian passes about 30 miles east of Yakima.

If there is a question of doubt regarding the membership affiliation of a chemist or chemical engineer, forward his name anyway.

As this is extremely important, please forward these names quickly.

Sincerely yours,

COLLIS C. BRYAN, *Chairman*

*\*A chemist or chemical engineer is one who has a college degree in that field or its equivalent in study and industrial experience.*



ments in this field. The organic compounds of fluorine include liquids, solids, gases, waxes, lubricants and polymers. For example, "Teflon," a tetrafluoro-ethylene polymer, sometimes called the noble metal of the plastics, is inert to all acids and does not decompose below 400°C. Du Pont has developed a method for coating vessels with it. A similar polymer manufactured by the M. W. Kellogg Co., "Kel-F," is a fluorochloro polyethylene. It is transparent, but not as chemically inert as "Teflon."

When one speaks of fluorine compounds, one must speak in terms of superlatives. Fluorine has the greatest electron affinity of any element. To cause the ionization of fluorine gas requires more energy than for any other element except helium and neon. The ionic (salt-like) fluorides are the most salt-like of all halides and have the highest boiling points; the co-valent fluorides, e. g., substituted hydrocarbons, have by far the lowest boiling points of the fluorides. Generally speaking, the fluorocarbons are odorless, tasteless, colorless, resistant to hydrolysis and oxidation, have low surface tensions and boiling points, and are poor solvents. Fluorocarbon lubricants, though inert, are characterized by a high ratio of vapor pressure to viscosity. Although the salt-like fluorides are exceedingly toxic, many of the organic compounds of fluorine are far less toxic than the corresponding chlorine compounds.

Studies of the Physical properties and crystallographic structure of fluorine compounds have yielded much interesting theoretical information on solubility and on chemical bonding. The work is being actively continued in several laboratories.

\* \* \*

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. . .

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. . .

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## SEATTLE NEWS

### Laucks Laboratories Names New Officers

A reorganization at Laucks Laboratories has resulted in new officers as follows: President, F. P. Owens; vice-president, G. O. Freeman; secretary, J. E. Hefferline, and treasurer, B. B. White. Directors are I. F. Laucks, John T. Laucks, Helen V. Laucks, Mr. Owens and Mr. Freeman. J. N. Kniseley has resigned.

\* \* \*

Dr. H. K. Benson suffered a broken arm and leg bone injuries in a runaway car accident this summer. He is still confined to his home.

\* \* \*

Wilmington, Del. — Dr. Francis H. Skewis, formerly of Seattle, Washington, an alumnus of the University of Washington, recently joined the research staff of the Du Pont Company's Polychemicals Department at Belle, W. Va.

Dr. Skewis was graduated from the University of Washington in 1942, receiving the degree of bachelor of science in chemistry and this year received the degree of doctor of philosophy in organic chemistry also from Washington. He is a member of Sigma Xi.

\* \* \*

Among those presenting papers at the Chicago A. C. S. meeting on Sept. 3-8 were Frank West, D. M. Ritter, R. W. Moulton, J. L. McCarthy, D. J. Hanahan, H. J. Dauben and A. G. Anderson. Also attending the meeting from this area were Paul C. Cross, W. R. Gailey and Victorian Sivertz.

The papers included:

(1) F. B. West, P. A. Robinson, A. C. Morgenthaler, T. R. Beck and D. K. McGregor, "Liquid-Liquid Extraction From Single Drops"

(2) D. M. Ritter, "Non-Degratory Oxidation of Lignin Sulfonates."

(3) R. W. Moulton, B. S. Greaves and P. G. Hebner, "Phosphate Fertilizer by the Fusion of Phosphate Rock and Olivine."

(4) R. L. Davis, Eric Reaville, Q. P. Peniston and J. L. McCarthy, "Lignin: Oxidative Alkaline Cleavage of Soft-



wood Lignin Sulfonates."

(5) P. K. Mulvany, H. D. Agar, Q. P. Peniston and J. L. McCarthy, "Nature of Sulfite Waste Liquor Sugars."

(6) D. J. Hanahan, "Enzyme-Catalysed Degradation of Phospholipoid in Diethyl Ether."

(7) H. J. Dauben, L. L. McCoy and E. A. Youngman, "Catalysis and Inhibition of the Reaction of N-Bromo-Succinimide With Alkenes."

(8) A. G. Anderson and Jerry A. Nelson, "Synthesis and Electrophilic Substitution of Azulene."

\* \* \*

## A. C. S. NEWS

Chemists of five European countries have accepted an invitation to take part in the first international meeting to be sponsored by the Division of Rubber Chemistry of the American Chemical Society in Cleveland, Ohio, October 11, 12 and 13, it is announced by Dr. F. W. Stavely, chairman of the division and research director of the chemical and physical research laboratories of the Firestone Tire & Rubber Company.

Rubber chemists from England, France, Italy, Netherlands and Germany are scheduled to present a total of 25 technical papers which, together with an equal number of papers by Americans, will constitute a full three-day scientific program stressing the international exchange of information on the compounding and processing of natural and synthetic rubber.

Presentation of the Charles Goodyear Medal of the Division of Rubber Chemistry and speeches by world leaders in the rubber industry will highlight the banquet to be held in the Carter Hotel Thursday evening, October 12.

\* \* \*

*Release to Local Section Publications for the September or October Issue*

How many chemistry bachelors continue with graduate study? How many enter medicine? How many never use their chemical training at all? Do recent graduates consider that they found work that utilizes their training? How much have recent grads earned and can they increase their earnings at a satisfying rate? Did the 1946 grads really have

an easier time than the 1949 men in finding professional employment? Do many chemists leave the profession for other work after one, two or three years' work as chemists?

Answers to questions like these can come only from persons who have faced the situations provoking the questions. The only way to find answers is to ask the kind of questions that yield those answers and to ask many persons.

The editors of *The Career News*, a journal specializing in vocational guidance, are asking those questions this fall. They are addressing 10,000 questionnaires to a very representative cross-section of chemistry graduates of the classes 1946 through 1949. Experienced in vocational guidance and personnel analysis, these investigators have designed a skillful study that will throw strong light on "mobility," "attrition," "outlook" and other vocational problems which teachers now can't resolve for lack of data.

H. H. Bliss and B. R. Stanerson, acting on individual responsibility because of strong interest in these professional matters, have served as voluntary consultants in designing the questionnaire. In view of the common attitude of not answering questionnaires, they make this special appeal: If you are one of the interviewees, please answer the questionnaire promptly. If you know an interviewee, urge him to do the same. The skillful design of the form assures anonymity without sacrifice of means of cross-checking interpretations. What is needed most at this point is the maximum friendly cooperation from interviewees. The profession needs this kind of information urgently.

\* \* \*

## WASHINGTON COUNCIL OF RESEARCH LABORATORIES

Membership in the Washington Council of Research Laboratories, recently organized for the purpose of acquainting the public with the local facilities qualified for research on their scientific problems, is limited to firms, individuals, and institutions, generally provided with laboratories, which will undertake scientific research for clients.



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Officers of the Council include Dr. T. L. Swenson, Food Chemical and Research Laboratories, Seattle, chairman; Mr. Tom Williams, Northwest Laboratories, Seattle, vice-chairman, and Mr. W. W. Philbrick of the University of Washington Engineering Experiment Station, secretary-treasurer.

The membership committee, headed by Dr. H. K. Benson, Professor Emeritus of Chemical Engineering and Director of Research, Laucks Laboratories, Seattle, includes Mr. Joseph Drumheller, Drumheller Analytical Laboratory, Spokane, and Chairman of the Board of Regents of the University of Washington; Mr. A. J. Norton, Seattle; Prof. E. B. Parker, Director, Division of Industrial Services, Washington State Institute of Technology, Pullman, and Mr. Robert Lent, Lambert-Lent Laboratories, Seattle.

The Council has prepared a directory of its members, for distribution to the public, outlining the facilities and specialties of its members.

## **NECROLOGY**

I regret to report the death on June 7, 1950, of Louis S. Keyser, Research Chemist at the Central Chemical Laboratory of Rayonier Incorporated, Shelton, Washington.

Dr. Keyser was born in the Panama Canal Zone in 1910. Early in life he moved to the Pacific Northwest, receiving his B. S. in chemistry from the University of Idaho in 1934 and his Master's degree from the same school a year later. He received his Doctor's degree at the University of Illinois in 1938 and after two years of post-doctoral research, joined the staff on Rayonier Incorporated, Central Chemical Laboratory at Shelton. He continued work with that group in various capacities until his death.

—Dean W. Balkema.

\* \* \*

He who looketh upon a woman loseth  
a fender.



## NOMINATION OF OFFICERS FOR 1951

The nominating committee, appointed by your chairman, approved by the executive committee, and reported at the September meeting, consists of:

Joseph L. McCarthy, chairman, G. Otto Orth, Jr., Harold L. Rudow, O. P. Peniston, Robert D. Springer.

The report of this committee will be given at the October 25th meeting. At that time nomination may be made from the floor to be included on the ballot along with those made by the nominating committee.

—Collis C. Bryan.

\* \* \*

## NEW LIBRARY IS UP TO YOU

Voters in the November 7 elections will be asked to vote on the long overdue program to give Seattle a modern, efficient public library.

Already approved by the City Council, the \$5,000,000 bond issue, to be numbered 18 on the ballot, will give the city a new Central Library building and five branches of modern design. The central building would be built on the site of the present library and the new branches will go up in Ballard, Ravenna, Capitol Hill, Magnolia and Greenwood-Phinney.

The library has been hampered by inadequate facilities during the past few years in carrying out many services that it is otherwise prepared to give Seattle residents. Visiting experts have said that the Seattle library has the best aeronautical library on the coast in terms of material collected, but the crowded conditions make it difficult to use. Lack of space has also prevented the library from developing its adult education services, its music department, library of pictures and its collection of films for public use.

The present building, built in 1906, is antiquate and run down, and the 1949 earthquake damage was so extensive that repairs and refurbishing would be "extravagantly" costly, according to engineers.

Chemists as a group are habitual library users and have a great deal to

gain from a modern library building.

The new central building plans call for an entire floor given over to the Business and Technology departments. This provides space for their now overcrowded book and periodical collections and makes them more readily accessible, which means quicker service to the public. Of interest to chemists would be the Patent Alcove and a Chemistry Alcove where reference chemistry and the abstract journals would be conveniently placed.

Building plans call for a driveway through the building from Spring to Madison Streets, making available curb service which will allow books to be returned and others picked up without necessity of parking. Studies show that in many cases separate parking facilities are not needed since many of our patrons come to the Central Library from offices or combine a trip to the library with other business downtown.

It is planned to include the King County Public Library Administrative Headquarters in the new building.

Be Sure to VOTE!

\* \* \*

## SCIENTIFIC SUPPLIES CO. EXPANSION

The Scientific Supplies Company has moved the Portland office into new and enlarged quarters at 713 S. W. 12th Ave. The largest and most representative display stock of laboratory equipment on the Pacific Coast will be maintained for demonstrations. This includes the latest Beckman spectro photometric equipment as well as the new automatic titrator and pH equipment. Recent developments in laboratory heating appliances as well as modern microscopic units and accessories are being featured. The new Corning double-tough industrial piping is also prominently displayed in typical arrangements. In addition, Scientific Supplies Company has increased the Portland facilities to include local repairs and service to laboratory equipment. Mr. John R. Hiltner, formerly of the Borden Company, has joined the Portland staff, which is managed by H. C. Johnson.

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## Chemists Should Speak Their Convictions on Social and Political Issues

(Quotations from Linus Pauling, National President, A. C. S., in 1949)

Chemists, like other citizens, have certain rights and duties. However, because of their special knowledge and ability to evaluate problems, they have a special responsibility to study and speak their convictions on political and social issues, and call attention to civic dangers or problems.

Men of science have the right to speak about social and civic problems, but often hesitate to do so because of their fear of discharge by their employer. This situation is not fair to chemists, and as citizens and professional men, they should maintain their rights and express their ideas, protecting themselves by such organization as will be helpful to them.

The A. C. S. has an obligation to contribute to the welfare of the individual chemist as well as to the advancement of the science of chemistry. To do something tangible for the chemists will help advance chemistry, in the opinion of the speaker. Steps taken by the profession to advance chemistry will also benefit them.

Remuneration of college-trained men has suffered a relative decrease in comparison with non-college men in recent years, according to the speaker. Shortly after World War I, college-trained men were receiving 30% more than untrained men, while the figure today is close to 10% and dropping rapidly. Surveys have been attempted by various groups within the A. C. S. but this method of approach was considered debatable. Some type of organization should be employed to study the problem of the advancement of the profession of chemistry.

To have good relations between nations, we must have good relations be-

tween scientists.

Chemists have a social obligation and responsibility in the field of medicine, according to Dr. Pauling, who pointed out chemists have been called upon to pioneer in synthesizing new materials in great numbers for testing, and later in producing complex materials in large quantity. But chemists must also venture into new methods of approach to medical problems, overcoming in many instances the conservative methods of the physician, and attempt to apply chemical methods to the field of medicine, thereby placing medicine on a scientific basis.

\* \* \*

## THE CHEMISTRY OF INDUSTRIAL TOXICOLOGY

By Hervey B. Elkins

A study of industrial poisons from the chemical viewpoint, this book provides detailed data on the toxicology, physical characteristics, and maximum allowable concentrations of some 200 elements and compounds commonly produced in industrial operations.

Emphasizing the importance of control of fumes and dust in the prevention of occupational illness, Dr. Elkins discusses the major methods of testing industrial processes for dangerous substances. The book also contains additional information on the determination of 64 toxic substances in air and 12 toxic substances in urine.

Urokon, a new X-ray contrast medium for visualization of the urinary tract, will be made available to the medical profession on May 1, it was announced by the Mallinckrodt Chemical Works. The result of original research by Dr. V. H. Wallingford, Mallinckrodt's Director of Organic Research, the new product exhibits great opacity to X-rays due to its uncommonly high iodine content (65.8%). Chemically, Urokon is sodium 3-acetylamino—2, 4, 6—triiodobenzoate. For diagnostic use it is supplied in 25 cc ampuls as a 30% sterile solution.



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## MEMBERSHIP DEPARTMENT

Welcome to each one listed here. Come on out and identify yourself at the meetings.

\* \* \*

### NEW

CHIANG, Hsi K., 5007 19th Ave. N. E.,  
Seattle 5, Wash.

GOHEEN, David W., Chemistry Dept.,  
University of Washington, Seattle 5,  
Wash.

SILVEY, Gene A., 901 East 43rd St.,  
Seattle 5, Wash.

STEUNENBERG, Robert K., 5212 18th  
Ave. N. E., Seattle 5, Wash.

STILES, Vernon E., Box 2, University Sta-  
tion P. O., Seattle 5, Wash.

THACKREY, Robert A., 1523 19th Ave.,  
Seattle 22, Wash.

TULLY, John P., Pacific Biological Sta-  
tion, Nanaimo, British Columbia, Can-  
ada.

ZACHARENKO, Vladimir S., 13507 1st  
N. E., Seattle 55, Wash.

\* \* \*

### TRANSFERS

BAJEMA, Hilda G., 121 Park Ridge  
Road, Bellingham, Wash.

*From Massachusetts (Northampton)—*

Change in name from GELLERSON,  
Hilda.

PATRICK, Phyllis L. (Mrs.), 911 South  
12th, Tacoma, Wash.

*From Michigan (East Lansing)—*

TICKNOR, Leland B., Route No. 1,  
Box 197, Centralia, Wash.

\* \* \*

"Humility is the part of wisdom, and is most becoming in men. But let no one discourage self-reliance; it is, of all the rest, the greatest quality in true manliness."

—*Think Magazine.*

\* \* \*

Imagination was given a man to compensate him for what he is not; and a sense of humor was provided to console him for what he is.

\* \* \*

In filling out an application for a job, a man puzzled a long time over this question: "Person to notify in case of accident?" Finally he wrote: "Anybody in sight."

## WHO HAS A BETTER ONE?

Ralph Oesting of the Paul Lewis Laboratories (Milwaukee) has supplied us with the following true story. Who has a better one?

It seems a pipe fitter at his company became rather exasperated when requested to change some piping on an experimental unit for the fourth time and was heard to remark, "The only difference between chemists and lunatics is that they haven't caught the chemists."

\* \* \*

John Wiley & Sons announced the publication in March of a new reference volume, "An Index of Nomograms," compiled and edited by Douglas P. Adams.

A joint publication of Wiley and the Technology Press of the Massachusetts Institute of Technology, this book gives the location and content of seventeen hundred alignment diagrams published extensively in current technical journals. Emphasizing the use of nomograms—graphical devices designed to yield quick, accurate solutions to mathematical formulae—in practical engineering problems requiring the repeated use of the same equation, the Index covers a wide range of fields. Among these are: chemistry and chemical engineering; mathematics; physics; electricity, electronics and radio; hydraulics and power; aeronautics; waterworks and sewage; illumination; heating, piping and ventilating; oil and gas; building and surveying; mining; machine tools and design; metals; textiles; medicine; food; and transportation.

\* \* \*

## COMMITTEE DUTIES

### Program

Arrange programs for regular meetings, arrange for special functions such as dinners, receptions, etc., in connection with meetings. Appoint individuals to greet and transport visiting speakers. Arrange for introduction of speakers. In cooperation with Regional Activities Committee and Social Committee ar-

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range special joint meetings or social functions. Make necessary preparations for meetings in respect to: room location, projection facilities and operator, lights, etc. Submit planned program to executive committee in February and annual summary report at end of year.

#### *Public Relations*

Maintain active contact with all developments of Local Section activities. Develop contacts with local press and radio news services and the ACS News Service. Keep ACS News Service advised of all local section activities. Release appropriate information to local press and radio. Arrange for local radio program in cooperation with ACS News Service Radio Editor using local or national chemical developments, interviews, etc.

Submit planned program to executive committee in February, and annual summary report at the end of the year.

#### *Social*

Plan and arrange at least one major social function each year. Arrange for refreshments before or after meetings as appropriate. Cooperate with Program and Regional Activities Committees on special joint meetings.

Submit planned program to executive committee in February and annual summary report at the end of the year.

#### *Membership*

Survey the Section area to determine the actual number of non-members of the ACS who are qualified for membership. Maintain an active file of such non-members for mailing purposes.

Maintain close touch with the Washington office of the ACS making full use of literature and other aids in the solicitation of new members.

Stimulate the interest of the Section so that every member will search for at least one new member.

Maintain a continuous membership drive using personal solicitation, mail and all other means available.

Study means to organize Student Affiliate groups in all colleges in the area.

Particularly solicit and encourage

membership by all possible instructors in chemistry in the secondary schools in the area.

Submit a planned program to the executive committee in February and an annual summary report at the end of the year.

#### *Employment*

Carry out studies of employment opportunities for Chemists in the Pacific Northwest. Maintain records of available positions and prospective developments. Handle correspondence directed to section concerning employment matters.

Develop a general information program in cooperation with the Public Relations Committee to make the Pacific Northwest aware of the need for the "chemical approach" to the end that greater employment opportunities for chemists may be created in Northwest industries.

Submit a planned program to the executive committee in February and an annual summary report at the end of the year.

#### *Regional Activities*

Maintain information concerning activities of other Sections in the area. Arrange in cooperation with the Program and Social Committees, for special joint meetings or social functions. Assist with plans at National or Divided meeting where participation by the Section is feasible.

Submit an annual summary report to the executive committee at the end of the year.

#### *Professional Practice and Legislation*

Inform the Section of new legislation or proposed changes in legislation concerning or of interest to the profession. Represent the Section expressions to legislative group.

Submit an annual summary report to the executive committee at the end of the year.

#### *Puget Sound Engineering Council Representative*

Represent the Section and keep the membership informed of the activities of the Puget Sound Engineering Council.



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BE A CITIZEN**



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**NOVEMBER 7**

## **CHEMICALS**

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BOISE**

Philip R. Park., Inc., of San Pedro are offering condensed, partially hydrolyzed, de-fatted fish livers for sale. This is a rich source of the vitamin B complex and the animal protein factor.

Dow Chemical announced in their Feedstuffs ad of February 4, that methionine (feed grade) is now available for poultry feed mixtures.

## **ARTHUR J. NORTON**

**Consulting Chemist**

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*Associate*  
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## Vapor Pressures and Boiling Points of 60 Hydrocarbons

### Published by NBS

Measurements of vapor pressures and boiling points, over the range 48 to 780 mm. of mercury and above 11° C. were made by the National Bureau of Standards on 60 API-NBS purified hydrocarbons.

Research Paper RP2049, Journal of Research of the National Bureau of Standards, December, 1949, pages 555-563, gives the experimental data and results of the correlation with the Antoine equation for 17 paraffin, 14 alkylcyclopentane, 8 alkylcyclohexane, and 21 alkylbenzene hydrocarbons.

\* \* \*

A platinum-tipped micro-burette, designed to deliver drops of approximately 0.01 milliliter, is being made by Kimble Glass, Division of Owens-Illinois Glass Company. It was designed by Kimble research engineers for use in the field of micro-chemistry.

\* \* \*

The 1951 edition of the booklet, "Physical Properties of Synthetic Organic Chemicals," has just been issued by Carbide and Carbon Chemicals Division, Union Carbide and Carbon Corporation. This 16-page booklet is a condensed guide for users of organic chemicals. It presents data on applications and physical properties of more than 250 synthetic organic chemicals in tabular form for ready and easy reference. Copies may be obtained without charge by writing to Carbide and Carbon Chemicals Division, 30 East 42nd Street, New York 17, N. Y. Ask for Form 6136.

\* \* \*

## EVALUATION OF COLLEGE EDUCATED EMPLOYEES

"College Children" are costly errors added to payrolls of too many businesses. This statement was made by Dr. Robert N. McMurray of a Chicago management firm after a survey of trainees hired directly from college by 250 companies. According to his report, 42% quit or were deposed within a year. Emotional immaturity—failure to grow

up—was largely responsible in the opinion of Dr. McMurray. He outlined opinion of Dr. McMurray. He outlined seven points for evaluating prospective college-educated employees, all of which are necessary before hiring. They were:

(1) Ability to stay long enough with a company to repay the investment in training; (2) Perseverance—ability to follow a path to the end even though it may be unfamiliar; (3) Self-reliance; (4) Quality of being agreeable to different groups and to different persons; (5) Identification of personal goals with those of the employing company; (6) Ability to exercise authority without belligerence; (7) Ability to accept responsibility.

—Southern Chemist.

\* \* \*

## GLYCERIN SUBSTITUTE

The scarcity of glycerin has inconvenienced many manufacturers. Glycerin may be replaced in many cases by a synthetic product, Aquaresin (Glycol Bori-Borate), which is being produced on a tonnage basis by Glyco Products Co., Inc., Brooklyn, N. Y., and Natrium, W. Va.

Aquaresin is being used as a softener and plasticizer for glue, gelatin and water soluble gums. It is used as a lubricant and softener in textile and paper manufacture. A detailed leaflet on its use in textiles is available. It is non-toxic but is not to be used internally. It is not suitable as an anti-freeze.

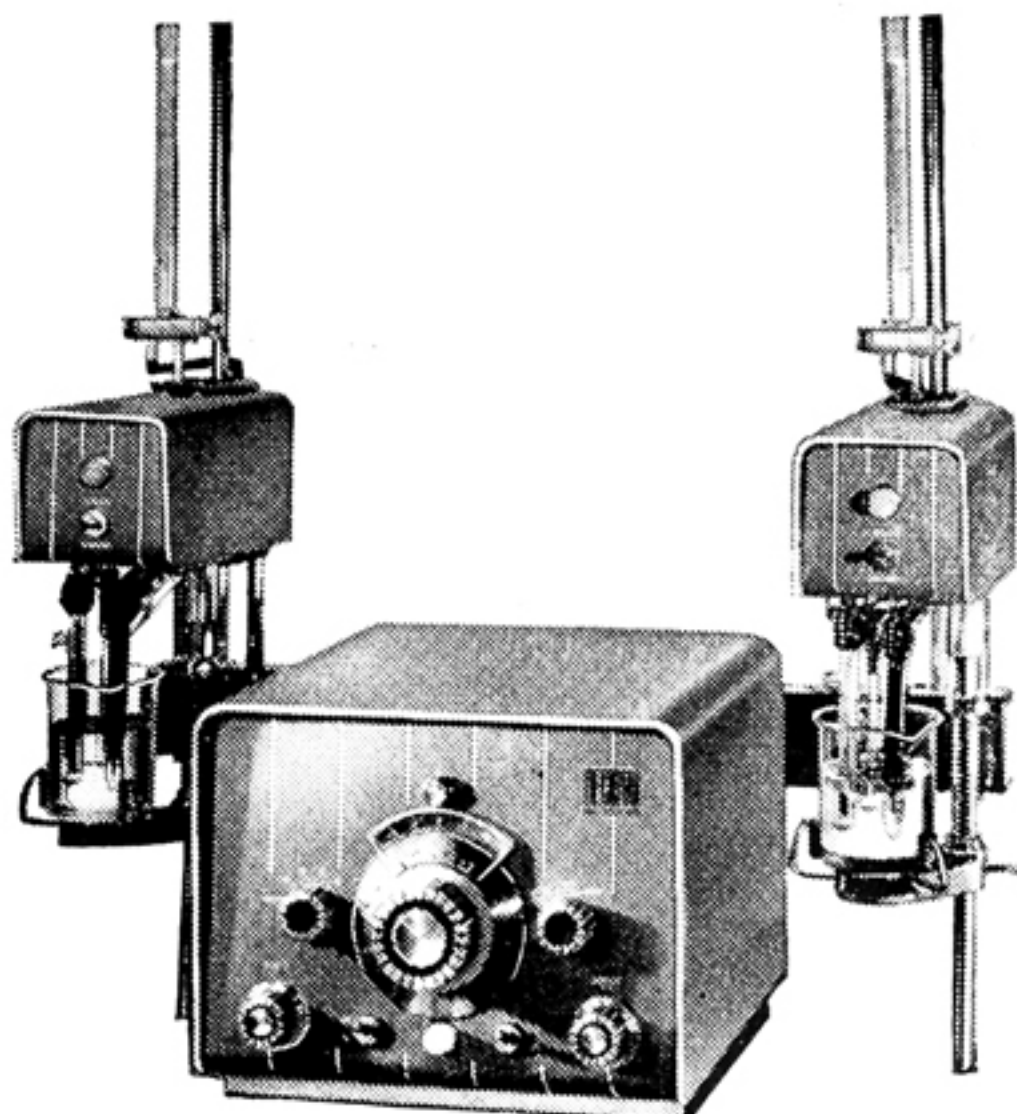
Aquaresin is offered in 55-gallon drums at 30 cents per pound, F.O.B. Natrium, W. Va. Prompt shipments can be made.

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Automatically performs titrations with a saving of time and labor. Covers the bulk of titration operations including neutralization, oxidation-reduction, precipitation type and complex formation types of titrations. Also serves as a reliable A. C. powered pH Meter which can be used with grounded solutions. More rapid and accurate than manual methods in routine titrations and can be used with a wide variety of electrodes and burettes for special requirements. The instrument consists of the amplifier unit and one delivery unit for pH and another delivery unit for oxidation-reduction titrations. Additional delivery units can be added separately as it is possible to operate from one to four delivery units from each amplifier.

A specially designed electromagnetic valve controls the flow of titrating liquid. Ten ml to 400 ml beakers or similar vessels are readily accommodated in the adjustable holder, which automatically starts stirrer motor and delivery of titrating liquid when raised into position. A special-circuit electrically anticipates the approaching end point, assuring accurate titrations. Standard Beckman electrodes are used. Burettes in all standard sizes down to 5ml are readily accommodated. Temperature compensation range, 0-100°C. Potentiometer dial provides end point setting range of 0-14 pH and -600 to 1400 millivolts. Line voltage variations of plus or minus 10% are compensated for by built-in regulator. Operates on 115 volts AC. Corrosion-resistant materials used on all parts exposed to chemical attack.

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## IMPROVED METHOD FOR TREATING COTTON AND SYNTHETIC THREADS

In instances where nylon fabric is being sewn with cotton and nylon thread, or where needle heat is a factor in fusing nylon thread, the heat problem can be overcome by the application of the following solution to the thread by means of an oil wick on the sewing machine. The oil wick is placed on the sewing machine so that the thread contacts the wick after it has passed through the tensions. No oil, water or other solutions should be applied to the thread prior to the thread passing through the tension, if the best sewability results are to be obtained.

### *Solution for Nylon Sewing*

Diglycol Laurate S .....	0.4 %
Trigamine .....	0.2 %
Water .....	99.4 %

It is suggested that the felt pad be removed from the wick and that a piece of Dupont cellulose sponge be substituted for the felt pad. An oil drip cup of the needle valve type can be attached to the sewing machine and regulated to drip the lubricant on to the cellulose pad. In this way the thread picks up the lubricant and carries it to the needle and the lubricant tends to carry off the needle heat.

The use of this solution prevents burning out of the needle eye and eliminates rusting.

Both of the products used, Diglycol Laurate S and Trigamine, can be obtained from Glyco Products Company, Inc., 26 Court Street, Brooklyn 2, New York.

. . .

One reason why the big apples always are on top of the basket is the fact that a lot of little apples are holding them up there.

. . .

A lot of nicely reared girls are not so bad from the front either.

. . .

Time tells on a man—especially a good time!

## Regional Employment

DR. R. W. MOULTON  
University of Washington  
MEIrose 0630

The Puget Sound Chemist will carry notices of positions vacant and wanted. This service is confidential, and available gratis to all employers and members of the American Chemical Society in this area. Rates for A.C.S. members not in the area \$3.50 per issue for 50 words or less. Non-members, \$7.50.

. . .

# *Wanted!*

★ ★

**Associate Editor  
for the  
Puget Sound Chemist**

★

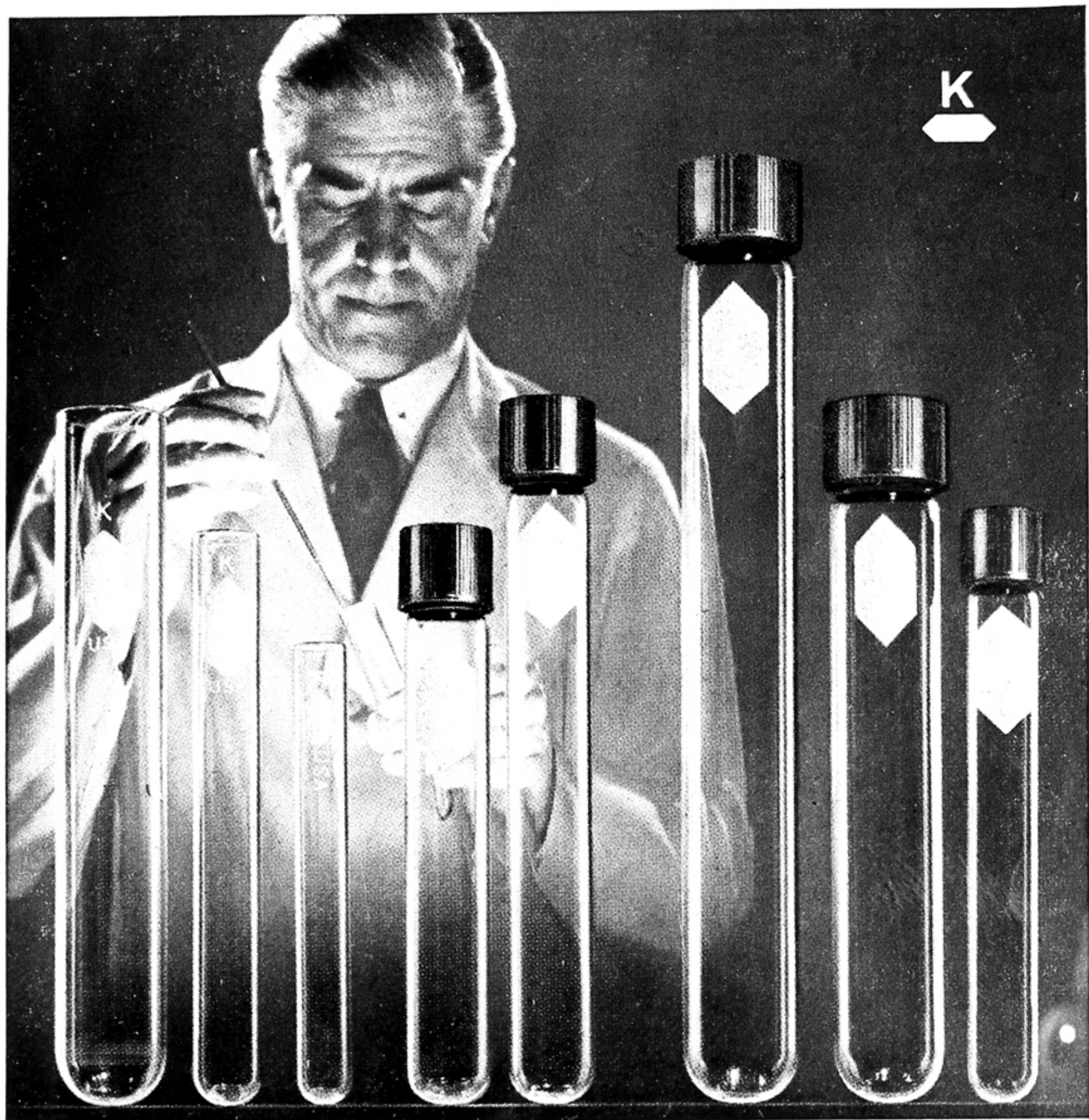
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## CONTAMINANTS

Judge: Why did you steal that \$75,000?

Defendant: I was hungry.

\* \* \*

Johnny, in a mid-year test, was asked: "Where is the capital of the United States?"

And the boy, who had overheard a lot of talk at home about government spending, got flunked for answering: "In loans all over the world."

\* \* \*

A deaf but pious lady, visiting a small country town in Scotland, went to church armed with an ear-trumpet. The elders had never seen one and eyed it with suspicion and uneasiness. After a short consultation one of them went to the old lady, before the opening of the service, and wagging his finger at her warningly, whispered. "One toot and you're oot!"

\* \* \*

Hercules Powder Co., major naval stores producer, will construct a pilot plant at Klamath Falls, Oregon, to study extraction of chemicals from Western Woods.

## BEHOLD THE FISHERMAN

He riseth up early in the morning and disturbeth the whole household.

Mighty are his preparations.

He goeth forth full of hopes.

When the day is far spent, he returneth, smelling of strong drink, and the TRUTH be not in him.

\* \* \*

A tavern keeper was awakened in the wee hours of the a. m. by pounding on his front door. Yelling through the front window, he shouted: "Go away. You can't have anything to drink at this hour."

"Who wants anything to drink?" was the reply. "I came back for my crutches."

\* \* \*

A young lady was on a sightseeing tour of Detroit. Going out Jefferson Avenue, the driver of the bus called out places of interest. "On the right," he announced, "we have the Dodge home."

"John Dodge?" asked the lady.

"No, Horace Dodge."

Continuing out Jefferson: "On the right we have the Ford home."

"Henry Ford?"

"No, Edsel Ford."

Still farther out Jefferson—"On the left we have the Christ Church." A fellow passenger hearing no response from the young woman, tapped her on the shoulder and said, "Go ahead, lady, you can't be wrong all the time."

\* \* \*

Mrs. Murphy: "What's a jeep? My boy Mike writes that he's running around with one."

Mrs. Clancy: "It's an Army automobile."

"The saints be praised. I thought it was a female Jap."

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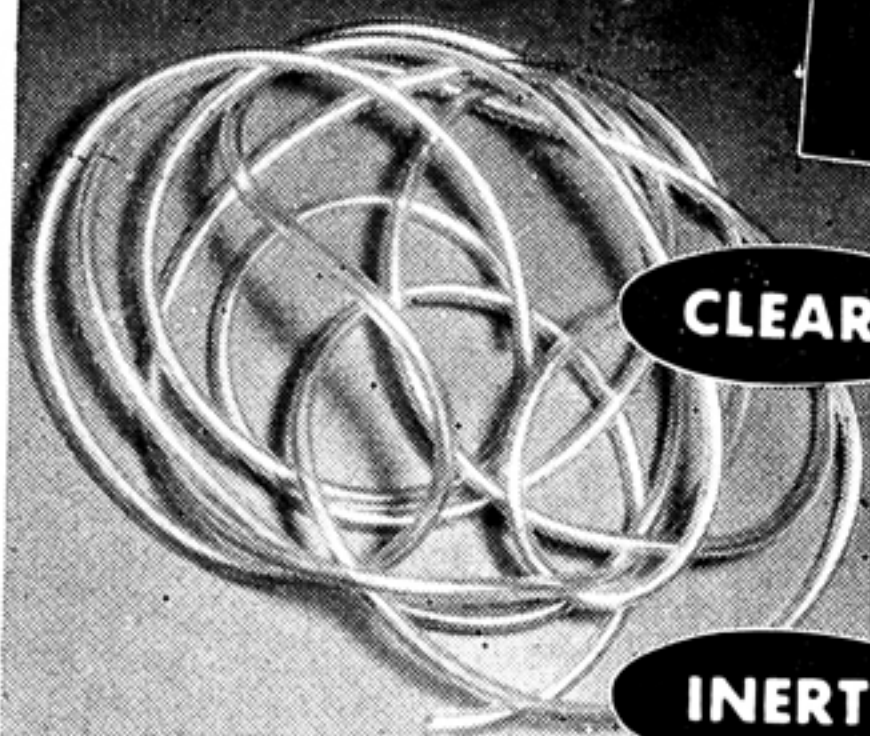
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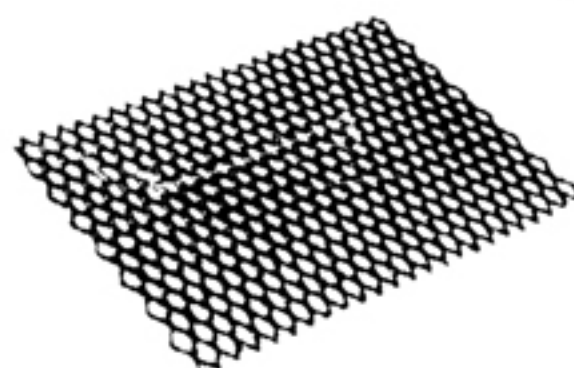
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