

## Names in the News

William J. Sparks, scientific advisor for the Esso Research and Engineering Company, Linden, N. J., has accepted appointment as a collaborator for the SOUTHERN UTILIZATION RESEARCH AND DEVELOPMENT DIVISION, New Orleans, La., and will confer with staff members on research to improve the utilization of vegetable oils and pine gum.

William L. Ellsleger has joined the research and development staff of THE GLIDDEN COMPANY, Cleveland, O., as a technical assistant.

JAMES S. LONG, retired chemical director of Devoe and Reynolds Company, received the honorary degree of doctor of science during the 89th annual commencement exercises at Lehigh University, Bethlehem, Pa.

Alby Wolf has joined the staff of the chemical engineering research department of GENERAL MILLS INC., Minneapolis, Minn.

A. E. STALEY MANUFACTURING COMPANY, Decatur, Ill., has named Richard M. Lawrence as research project analyst, a newly created position.

O. C. Johnson, formerly at the University of Illinois, has joined the research staff at A. E. STALEY MANUFACTURING COMPANY, Decatur, Ill., where he will serve as a senior research chemist in the foods laboratory.

J. B. BROWN has been appointed chairman of the department of physiological chemistry and pharmacology at Ohio State University, Columbus.

Jerome J. Van Gasse has been named assistant general manager of Pfizer Laboratories, division of CHARLES PFIZER AND COMPANY, Brooklyn, N. Y.

Frank E. Eden has been promoted to the staff of the development and service department of EMERY INDUSTRIES INC., Cincinnati, O.

Officers for 1957-58 of the AMERICAN SOCIETY FOR TESTING MATERIALS are R. T. Kropf, Belding Hemingway Company, New York, president; F. L. LaQue, The International Nickel Company, New York, vice president; and K. B. Woods, head, School of Engineering, Purdue University, Lafayette, Ind., vice president.

## Fatty Acids Rise

PRODUCTION of saturated and unsaturated fatty acids in June 1957 was 35.1 million lbs., about 0.4 million lbs. above the May level, but very close to the production figure reported for June 1956, according to the Fatty Acid Producers' Council, New York. Disposition in June totalled 31.6 million lbs., down 3.2 million from the May figure and down 1.7 million from the disposition figure for June 1956.

Stocks of finished goods at the end of June totalled 33.4 million lbs., about 4.4 million lbs. higher than the previous month's figure. Work in process decreased about 4.2 million lbs.

## European Soap Production

The Soap and Detergents Working Party of the Chemical Products Committee of the Organization for European Economic Cooperation met in Paris on July 8, 1957. It was reported that soap production in 1956 was 1,600,000 tons, 4% higher than the year before, in the 14 member countries which account for most of the output of soaps. Production of synthetic detergents was nearly 900,000 tons, 14% higher than in 1955.

# NUCHAR

means effective

**DEODORIZATION  
DECOLORIZATION  
and  
PURIFICATION**

Decolorization and deodorization of fats and oils *does not* insure complete removal of impurities—clarity alone is seldom proof of absolute purity. The unseen value of NUCCHAR ACTIVATED CARBON lies in its great surface area—in every gram of Nuchar there are over 120 billion of them. These particles work two ways: they have an ability to adsorb trace impurities of even 0.10% from fats and oils and they possess a reducing action. This double action is an important factor for increasing the heat stability of fats and oils.

Nuchar's great surface area and its double action results in better keeping quality of the oil, better heat stability and longer shelf life. . . . There's a grade of Nuchar Activated Carbon to effectively solve *your* specific purification problems.

For over 30 years, purification problems have been our business. This valuable experience is at your command—call on our Technical Staff today.



New York Central Bldg., 230 Park Ave., New York 17, N. Y.  
Phila. Nat'l Bank Bldg., Broad & Chestnut Sts., Phila. 7, Pa.  
Pure Oil Bldg., 35 E. Wacker Drive, Chicago 1, Ill.  
2775 S. Moreland Blvd., Cleveland 20, Ohio

**industrial**  
CHEMICAL SALES  
division west virginia pulp and paper company



**FORTIFY AND COLOR WITH PFIZER PURE VITAMIN A PRODUCTS**  
*without affecting taste or odor!*

● Take your pick. You can order bulk quantities or batch-size cans of Pfizer Pure Crystalline Vitamin A in any one of these convenient formulations:

1. **Vitamin A Acetate or Palmitate** dissolved in refined winterized cottonseed or corn oil (no color added).

2. **Vitamin A plus Vitamin D** (with or without any of the two coloring agents below).

3. **Vitamin A with Pfizer Beta Carotene** (a stable, nutritional coloring agent that imparts a uniform, true, natural color).

4. **Vitamin A with Pfizer Vegetable Color** (The latter is an oil-soluble 20% suspension derived from annatto beans).

Pfizer combination vitamin and color products can be pre-blended to your specifications, so that you can fortify and color with maximum ease and best results. You will find Pfizer Vitamin A *odorless, tasteless and highly stable*. Count on Pfizer, a leader in vitamin research and development, for products of uniform high quality in convenient forms.

**Pioneer  
 and Leading  
 Manufacturer  
 of Vitamins**



**CHAS. PFIZER & CO., INC.**  
 Chemical Sales Division  
 630 Flushing Ave., Brooklyn 6, N. Y.  
 Branch Offices: Chicago, Ill.;  
 San Francisco, Calif.; Vernon, Calif.;  
 Atlanta, Ga.; Dallas, Tex.



the Activated Carbon with the

Peerless Ingredients

Tests prove NORIT retains 30% (on the average) less refined oils and fats than other activated carbons.

#### **DECOLORIZATION**

Superior manufacturing techniques provide consistently high porosity in every grade. Less NORIT is required to remove unwanted impurities than any other carbon.

#### **PURITY**

Priceless when needed. NORIT guarantees highest standards to meet the most rigid requirements.

#### **UNIFORMITY**

The "ingredient" that maintains the high degree of porosity is constant from one pound to the other.

#### **HARDNESS**

An "extra ingredient" in *pelletized* NORIT. In solvent extraction processes where solvent recovery is important, NORIT costs far less than other recovery carbons.



with the "peerless ingredients", comes in powdered, granular and pelletized forms. Let us recommend a grade to do your job better and at less cost.

**L. A. SALOMON & BRO.**

216 Pearl Street, New York 38, N. Y.

In Canada:

THE NORIT SALES COMPANY OF CANADA  
P. O. Box 310, Scarborough, Ontario

Plant:

AMERICAN NORIT COMPANY, INC.  
Jacksonville 8, Florida

## Now Available . . .

Two Reyers balances, one for analytical laboratory weighing to 1/100,000 of capacity and the other for bulk weighing and dispensing to 1-kg. capacity, are described in a data sheet available from ARTHUR S. LAPINE AND COMPANY, Chicago, Ill.

WILKENS-ANDERSON COMPANY, Chicago, Ill., offers new dilatometry apparatus specifically designed for A.O.C.S. Method Cd-10-57.

Principal advantages of model No. 3 of the Wiley laboratory mill, available from ARTHUR H. THOMAS COMPANY, Philadelphia, Pa., are harder cutting edges on the knives, quieter performance with less vibration, and improved appearance.

The systems division of BECKMAN INSTRUMENTS INC., Fullerton, Calif., has published a new booklet entitled "A Practical Data System for the Process Industries."

PROCTER AND GAMBLE COMPANY, Cincinnati, O., announces the availability of a chromatographic detergent for use as a column-packing material in vapor-phase chromatography. The shape and size of the spray-dried detergent granules provide a low-pressure drop through the packed column.

Development of gloss and semi-gloss interior paints and industrial finishes using a water-thinned vehicle, Arolon 110, has been announced by ARCHER-DANIELS-MIDLAND COMPANY, Minneapolis, Minn.

SRES. JOSE FRANCHINI LTDA., Avellaneda, Argentina, has published (in Spanish) a technical bulletin entitled "Synthetic Detergents in the Processing of Fruits and Vegetables."

Temperature and pressure instruments for the chemical industry are described in a four-page leaflet published by WEKSLER THERMOMETER CORPORATION, Freeport, L. I., N. Y.

EASTMAN CHEMICAL PRODUCTS INC., Kingsport, Tenn., has published a 16-page technical data report on "Analysis of Phenolic Antioxidants."

Mixers offered by READ STANDARD, Division of Capitol Products Corporation, York, Pa., are described in Bulletin No. 1483, recently published by the company.

"The Chemistry of Fatty Amines" is the title of a recent publication of the Chemical Division of ARMOUR AND COMPANY, Chicago, Ill.

A disc which may be dialed to pressure and temperature specifications is offered by BROOKS ROTAMETER COMPANY, Lansdale, Pa., for use as a guide in selecting flow meters for special applications. Bulletin No. 110, it is entitled "A Brief Guide to the Brooks Rotameter Line."

A new differential-pressure, liquid-level transmitter offered by THE FOXBORO COMPANY, Foxboro, Mass., mounts directly on a tank nozzle to provide a simple method for measuring viscous or slurry types of liquids in open or closed vessels.

Catalog 51-1450, available from FISCHER AND PORTER COMPANY, Hatboro, Pa., describes the company's new small-case instrument line for indicating, transmitting, and controlling pressure and temperature. The instruments in this line are housed in fiber glass cases.

Bulletin No. 835 lists "Adsorbents for Chromatographic Analysis," available from BURRELL CORPORATION, Pittsburgh, Pa.

## Compare your score on filtering screw press oil

**1  
man**

1-man, part time, operates this Niagara Pressure Leaf Filter. Cleaning time is reduced to a few minutes. No filter cloths or papers to handle.

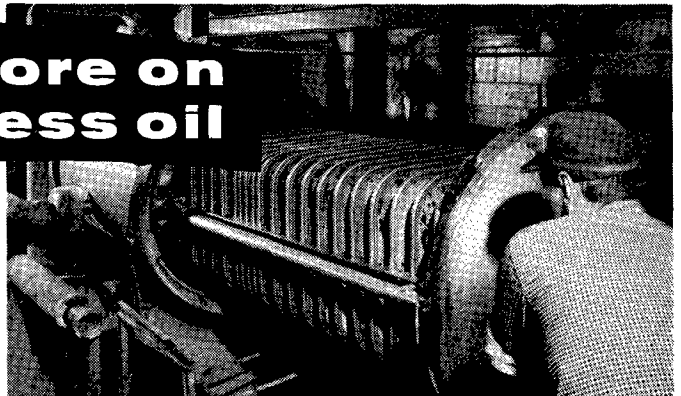
**10  
minutes**

Just a 10-minute air blow reduces residual oil in foots cake below that obtainable with a 45-minute blow on most filter presses.

**.025  
per cent**

High quality filtered oil—Complete removal of foots produces an oil with gasoline insolubles of only 0.025% reported by a plant filtering cottonseed oil.

**Specialists in Liquid-Solids Separation**



## Niagara FILTERS

A DIVISION OF

*American Machine and Metals, Inc.*

Dept. JO-957, EAST MOLINE, ILLINOIS

Niagara Filters, Europe, Kwakelpad 28, Alkmaar, Holland  
Yes, send me full data on a Niagara for filtering the following crude oil:  cottonseed,  linseed,  copra,  soybean,  corn,  sunflower seed,  rapeseed,  peanut,  other .....

NAME AND TITLE

COMPANY

ADDRESS

CITY

ZONE STATE

# Competition and food emulsifiers

Ever since the day two men started offering the same food product in the same market place, the food manufacturer has had to make a choice—either say his wares cost more because they are better, or find a way to make them better and yet cost the same or less. More businesses have been built on the latter than the former.

The hundreds of tons of monoglyceride emulsifiers that have come from our plant have done a bit to solve this competitive dilemma. For *Myverol Distilled Monoglycerides* happily cost less than the usual monoglyceride reaction mixtures, when measured on the scale of emulsifying effectiveness. The scales tip even further when you add the production economies they often help achieve.

Now about product quality. Here are two examples of what you can expect.

In peanut butter, experience with one type of *Myverol* has shown that it will not only stabilize and protect against "oil out" but will also confer the bonus benefits of 1) less stickiness in the mouth and 2) a very wide temperature range for the consistency that consumers like.

Or take household shortenings. With *Myverol*, shortenings can be produced that make a smooth cake batter of the right consistency, one that bakes to superior volume with controlled porosity.

And so on. Since *Myverol Distilled Monoglycerides* come in several forms, made from a choice of fats and oils, it is possible to select the emulsifier that is exactly right for the effect sought in your product.

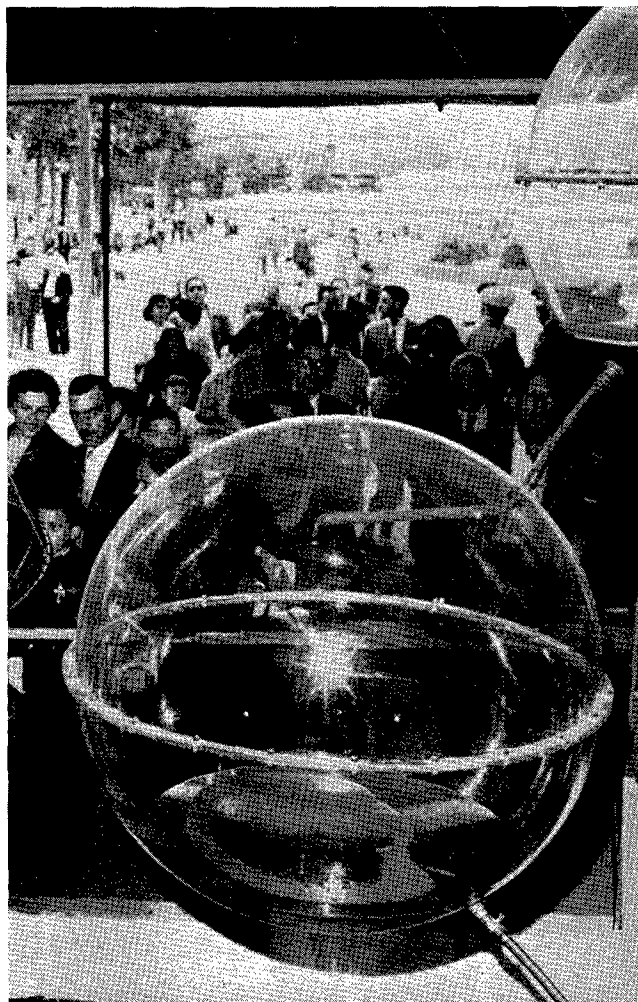
The best way to find out how much you can save with *Myverol Distilled Monoglycerides*, how *Myverol* can improve your products, is simply to try it. To get under way, write *Distillation Products Industries*, Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

*distillers of monoglycerides  
made from natural fats and oils*

Also . . . vitamin A in bulk  
for foods  
and pharmaceuticals



**Distillation Products Industries**  
is a division of **Eastman Kodak Company**



**OIL flowing through a series of plastic spheres made a colorful display of U. S. vegetable oils at the International Samples Fair, Barcelona, Spain, June 1-20, 1957.**

## P & G Announces New Education Aid

A NEW PROGRAM of aid to education is being inaugurated by the Procter and Gamble Company, Cincinnati, O., with the distribution to college professors of a series of marketing case histories for use as teaching aids. The materials deal with actual marketing situations, and Procter and Gamble plans to issue new sets approximately every six months.

According to a group of marketing professors who advised on the preparation of the material, this program marks the first time that a company has surveyed the needs of marketing educators, developed suitable material, and organized a method of offering it to them on a continuing basis. The initial set of two problems, which is being sent to professors of marketing throughout the country, deals with "Intra-Company Product Competition" and "Relationship of Distribution Channels to Production Problems."

The program follows closely a plan which was advocated by the Conference on Professional Education for Business, held in October 1955, under the sponsorship of the American Association of Collegiate Schools of Business.

## ITERG Meets at Bouchet, France

L'Institut de Recherche des Corps Gras "ITERG" met on July 11, 1957, at the central government research laboratories for the chemical industry at Bouchet, France, to inaugurate an experimental workshop and to study manufacturing processes which are of interest to the entire membership.

## We don't concentrate much any more

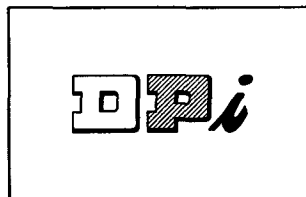
There was a time when all our vitamin A was concentrated by molecular distillation of fish liver oils. That's how we got started in the vitamin A business back in the 1930's. For the process not only gave high-potency vitamin A products, but it also solved the taste and odor problem in fortifying margarine.

Now, instead of just concentrating vitamin A, we make it. All of the vitamin A we produce is *Myvax® Vitamin A Acetate and Palmitate*. We make it in reaction kettles instead of vacuum stills. And we think the product is as good as, or possibly better than, any made today.

The beginning of margarine fortification and our entry into the vitamin A business were just about coincident. We've been supplying it ever since . . . for a long time in batch-sized cans as *Myvapack Vitamin A*, with whatever colorants you specify.

For the latest on prices, information, or technical help, write *Distillation Products Industries*, Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

**leaders in research and production of vitamin A**



Also . . . vitamin E . . . distilled monoglycerides  
. . . some 3600 Eastman Organic  
Chemicals for science and industry

**Distillation Products Industries** is a division of **Eastman Kodak Company**



*Announcing*

**a great new source  
of "Hard Glass" for  
America's expanding  
laboratory  
requirements**

Out of Owens-Illinois' famed Technical Center comes . . .

**KIMAX**

... bringing the unequalled Kimble reputation  
for quality, craftsmanship and accuracy  
in laboratory glassware to  
the medium of borosilicate glass

• *can be sealed to your existing "hard glass"  
apparatus . . . same coefficient of expansion*

Kimble proudly announces KIMAX . . . the trade-mark for its new laboratory glassware made of tough, hard KG-33 borosilicate glass. Kimble thus becomes *your* Most Complete Source of Laboratory Glassware.

**KIMAX—**

the "hard glass" trade-mark assuring maximum accuracy, dependability and extra long life.

**KIMAX—**

for *highest standards* of thermal and mechanical shock resistance.

**KIMAX—**

for *outstanding resistance* to chemical attack. This means long life with sparkling clarity.

**KIMAX—**

*ungraduated glassware* provides outstanding resistance to heat and mechanical shock and conforms to the most accurate tolerances of dimensional uniformity.

**KIMAX—**

*graduated glassware* is individually retested for accu-

racy. Its markings are permanent, stay sharp and clear for a lifetime.

**KIMAX—**

*easy to repair* and modify by using simple glass blowing techniques. Can be sealed to and repaired with your present hard glass apparatus. Therefore, it will not obsolete your present stock.

KG-33 tubing is readily available for your special glass blowing needs.

Kimble—*Your Most Complete Source of Laboratory Glassware* now provides your best opportunity for maximum quantity discounts.

Kimble—now offers you *new* convenience along with highest quality and greatest economy.

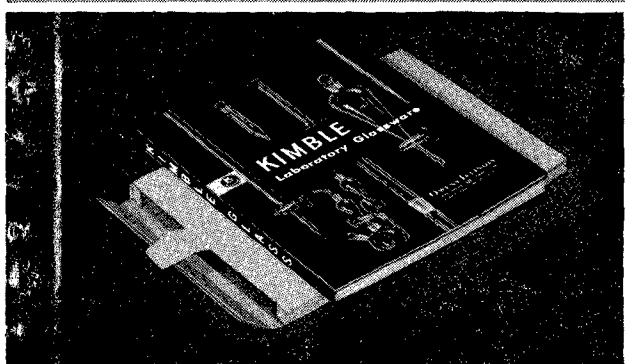


**SEND FOR THE NEW KIMBLE CATALOG NOW!**



The new Kimble catalog offers you convenient one-stop service for all your laboratory glassware requirements. Send in the coupon for your copy now!

KIMAX is a trade-mark of Kimble Glass Company



Kimble Glass Company, subsidiary of Owens-Illinois  
Dept. JS-9, Toledo 1, Ohio

Please send me the new Kimble Catalog which includes the new KIMAX borosilicate glassware line.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**KIMAX LABORATORY GLASSWARE**

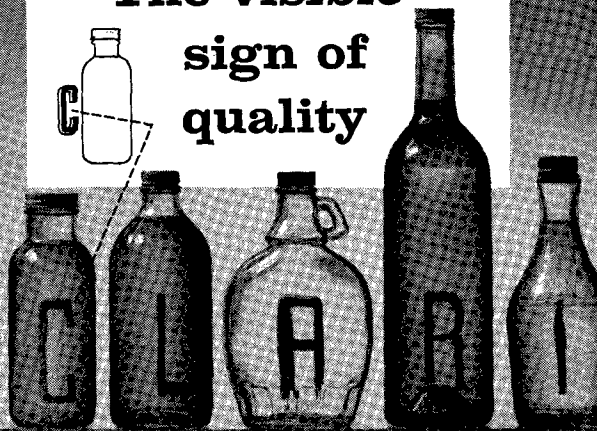
AN  **PRODUCT**

**OWENS-ILLINOIS**

GENERAL OFFICES • TOLEDO 1, OHIO



## The visible sign of quality



**CLARITY**, in the mind of the consumer, is the visible sign of quality in many food products... especially those with which the oil chemist is concerned.

To attain this sparkling clarity, Dicalite Filteraids have no superior... a fact established in many independent laboratory tests and in the daily experience of many leading food processors.

Since there are 8 Dicalite Filteraids, differing in particle size and range, practically any liquid can be filtered to desired clarity at economically fast flowrates. Since Dicalite Filteraids are sterilized in their processing from highest-grade diatomite, and are both chemically inert and physically stable, they cannot react with the liquid being filtered to affect flavor or aroma in any way.

Dicalite Filteraids are employed by many leading food processors for complete removal of bleaching clays and activated carbon (with no color reversion)... to remove stearine from winterized oils... to trap every trace of the nickel catalyst in hydrogenation... and to do these essential chores in such fashion as to maintain full production with reduced costs!

*A Dicalite service engineer will be glad to advise with you on any filtration problem - just write*

*Dependable*  
G.L.C.  
GREAT LAKES  
**Dicalite**  
DIATOMACEOUS MATERIALS

Dicalite Division, Great Lakes Carbon Corp.  
612 S. Flower Street • Los Angeles 17, California

## Industry Items

ARTHUR C. TRASK COMPANY, Chicago manufacturers and distributors of processed oils, tanning extracts, and special chemicals, has opened an eastern office in New York City.

The Clorox Chemical Company, Oakland, Calif., has been acquired by PROCTER AND GAMBLE COMPANY and will be operated as a wholly-owned subsidiary known as The Clorox Company. Procter and Gamble also announces that construction has been begun on a new technical center in Cincinnati.

BADGER MANUFACTURING COMPANY has established the Canadian Badger Company Ltd. with offices in Toronto.

To promote safety in the laboratory stockroom FISHER SCIENTIFIC COMPANY, Pittsburgh, Pa., will routinely package its chemicals in special non-skid cartons. Fisher recently introduced unbreakable aluminum cans for hydrogen peroxide and polyethylene cubes for corrosive bases.

The chemical consulting firm of R. S. ARIES AND ASSOCIATES has moved to enlarged quarters in Stamford, Conn., from its old address in New York City.

STEPAN CHEMICAL COMPANY, Chicago, has concluded negotiations for the acquisition of Ninol Laboratories Inc., Chicago, Ill.

The central research laboratories of GENERAL FOODS CORPORATION are being moved from Hoboken, N. J., to a new multimillion-dollar research center at Tarrytown, N. Y.

HONEYMEAD PRODUCTS COMPANY, Mankato, Minn., has installed a new Blaw-Knox Rotoeel extractor and a deodorizer for processing soybean oil.

BENJAMIN MOORE AND COMPANY, paint manufacturer, has opened a new, air-conditioned research laboratory at its plant in Newark, N. J.

Value of shipments of vegetable food products and beverages from the United States to Venezuela rose from \$33 million in 1954 to \$36 million in 1956, according to an analysis prepared by Econometric Specialists Inc., for the Creole Petroleum Corporation. Grains and preparations accounted for slightly more than half of the total value. Other leading items were fruits and preparations; vegetables and preparations; beverages; and refined vegetable oils, fats, and waxes.

## 1907-1957: Lab Equipment Costs

STANDARD laboratory items such as thermometers, crucible tongs, and rubber stoppers cost no more today than they did in 1907, according to a comparison made of catalogs published in 1907 and 1957 by executives at Chicago Apparatus Company.

Crucible tongs now cost 30¢, compared to a cost of 33¢ 50 years ago. Rubber stoppers which are \$1.75 a lb. now were \$2 in 1907. A wall thermometer listed at \$1 then is still \$1 in the latest Chicago Apparatus catalog. Ordinary test tubes have increased in price from 25¢ a dozen in 1907 to 30¢ a dozen now.

The cost of a great many items has increased considerably however, the company admitted. The simplest Bunsen burner listed today sells for 90¢ while a comparable 1907 model costs 22¢. Missing from the old catalog, of course, are spectrophotometers, automatic titrators, viscosimeters, and other instruments in common use today.

The 1907 catalog concentrated its 270 pages on items used in high-school and college laboratories while the current 1,293-page, 10-lb. book lists about 20,000 items used in industrial research.

# How Girdler G-15 Hydrogenation Catalyst can save you money

More and more users of oil-hardening hydrogenation catalysts are turning to Girdler G-15 for its recognized superior performance and greater over-all economy. G-15 is a highly active form of nickel deposited on an especially selected carrier which assures optimum performance characteristics. It improves filtration of the catalyst from the oil product, shortens the filtration cycle, and enhances oil color and quality. Its superior selectivity makes it the most effective catalyst known for the hydrogenation of carbon-to-carbon double bonds. It is the only oil-hardening catalyst on the market which is dry-reduced, resulting in a highly active form of nickel. It is normally suspended in hardened oils.

Contact us for a sample of Girdler G-15 and see for yourself what it can do for you.

- ★ HIGH ACTIVITY
- ★ HIGH SELECTIVITY
- ★ EASE OF HANDLING
- ★ OUTSTANDING FILTERABILITY
- ★ EXCELLENT REUSE PROPERTIES
- ★ SUPERIOR END-PRODUCT COLOR

CATALYST DEPARTMENT

The **GIRDLER** Company

A DIVISION OF NATIONAL CYLINDER GAS COMPANY

LOUISVILLE 1, KENTUCKY

GIRDLER MANUFACTURES CATALYSTS FOR: HYDROGENATION • SYNTHESIS GASES AND HYDROGEN GENERATION • DESULFURIZATION • NEW CATALYTIC PROCESSES

## THE SARGENT



Designed and Manufactured by  
E. H. SARGENT & CO.

# LABORATORY RECORDER

(Patents Pending)

An automatic, self-balancing potentiometric recorder which measures voltages or current and graphically records these variables as a function of time.

- **MULTI-RANGE—40 ranges.**
- **MULTI-SPEED—9 standard chart speeds with provision for optional 1-5 range multiplication or 5-1 range reduction.**
- **VOLTAGE OR CURRENT RECORDING—for measurement of voltage or current or any other variable which can be translated to voltage or current signals.**
- **FLEXIBILITY OF APPLICATION**
- **DESIGNED FOR BENCH OPERATION**

**Style:** Vertical strip chart recorder, designed for laboratory bench operation. Assembly of three individual, separable, and self contained units; viz., control panel assembly, amplifier and power supply chassis, and chart and pen drive chassis unit.

Automatic null balancing potentiometric system with standard cell standardization by panel control, conventional chopper-amplifier method with special Sargent high gain amplifier and high stability Sargent bridge power supply using combined or alternate dry cells and mercury cells. Use of the latter obviates need for standardization over very long periods.

**Ranges:** Multiple full scale ranges selected by panel range switch as follows: 1.25, 2.5, 5, 12.5, 25, 50, 125, 250, 500, 1250, 2500. All ranges are made direct reading as full scale deflection in millivolts, milliamperes, or microamperes by use of an associated units selector switch. All 33 scales provide true potentiometric measurement. An additional series of the same eleven ranges in terms of volts is provided by an additional selector switch position, this series using a divider input with an impedance of one megohm.

True potentiometric measurements are thus provided to a maximum of 2.5 volts, higher voltages only being measured through a divider.

**Accuracy:** 0.1% or 20 microvolts, whichever is greater.

**Chart:** Width, 250 mm; length, 120 feet. Ruling rational with all ranges on a decimal basis. Indexed for reference. Graduated steel scale provides for any necessary correction of calibration. Two-position writing plate, 15° or 40° from vertical.

**Chart Drive:** Forward drive recording, reverse drive re-

recording, magnetic brake eliminating coasting when stopped and free clutch position with separate provision for rapid non-synchronous drive.

Recording speeds of  $\frac{1}{3}$ ,  $\frac{1}{2}$ , 1,  $1\frac{1}{2}$ , 2,  $2\frac{2}{3}$ , 4, 8, and 12 inches per minute, selected by interchange of two gears on end of chassis.

Free clutch or neutral drive at the rate of approximately 20 feet per minute in either direction for rapid scanning of recorded information, chart reroll, or chart positioning.

Recording either by automatic take-up on roll or with free end chart and tear off.

Synchronous switching outlet for automatic synchronization of external devices with recording.

**Pen Speed:** 1.8 seconds full scale. Other speeds can be provided on special order with change of motors.

**Bridge:** Special Sargent specification, ganged Helipot with resolution several times common commercial practice. Provision for coupled transmitting potentiometer for output to integrating circuits, etc.

**Damping:** Dynamics controlled with single panel knob adjustment of amplifier gain.

**Dimensions:** Width,  $21\frac{1}{2}$  inches; depth, 13 inches; height, 24 inches; weight, about 75 pounds.

**S-72150 RECORDER — Potentiometric, Sargent.** Complete with two S-72165 chart rolls; two each S-72175 pens; red, blue and green; input cable assembly; synchronous switch cable assembly; plastic dust cover; spare ring for take-up mechanism; spare pen drive cable assembly; and fuses. For operation from 115 volt, A.C. single phase, 60 cycle circuits. . . . . \$1725.00

## SARGENT

SCIENTIFIC LABORATORY INSTRUMENTS • APPARATUS • SUPPLIES • CHEMICALS

E. H. SARGENT & COMPANY, 4647 W. FOSTER AVE., CHICAGO 30, ILLINOIS  
MICHIGAN DIVISION, 8560 WEST CHICAGO AVENUE, DETROIT 4, MICHIGAN  
SOUTHWESTERN DIVISION 5915 PEELER STREET, DALLAS 35, TEXAS  
SOUTHEASTERN DIVISION, 3125 SEVENTH AVE., N., BIRMINGHAM 4, ALA.

Rearranging

FATS?

Use **HARSHAW**  
**Sodium**  
**Methylate**  
**Powder**

Packaged in air tight steel drums of 10, 25, 50  
and 200 pounds net

Free Flowing white  
hygroscopic powder  
Formula  $\text{NaOCH}_3$

Sensitive to air and moisture  
Packs 4.2 pounds per gallon  
Formula Weight 54.03

**TYPICAL CHEMICAL ANALYSIS**

Sodium Methylate. . . . .	97.5%
Sodium Hydroxide . . . . .	0.5
Sodium Carbonate . . . . .	0.4
Sodium Formate . . . . .	0.3
Methanol (Free). . . . .	0.5
Soluble in Alcohols, Fats, and Esters	
Decomposed violently by water	
Standard 95.0% min.	

**PHYSICAL PROPERTIES**

Fine white powder—over 75% through 150 mesh—less  
than 1% on 10 mesh  
Bulking Density . . . about 4 lbs. per gallon  
Melting Point: none . . . decomposes in air above 260°F

**ALSO AVAILABLE**

**HARSHAW SODIUM METHYLATE LIQUID**

Packaged in Steel Drums . . . 100 pounds or 425 pounds net  
25% solution of sodium methylate in methanol

Analysis: Sodium Methylate Content. . . . . 25% minimum

Physical Properties: slightly cloudy to clear solution

Bulking Density. . . . .	about 7 lbs. per gallon
Initial Boiling Point . . . . .	188°F for 25%
Flash Point (Cleveland Open Cup) . . . . .	85-90°F
Flash Point (Closed Cup) . . . . .	80°F
Crystallization Temperature . . . . .	30°F after equilibrium

**STABILITY**

Harshaw sodium methylate, both in powder and solution  
form, is stable in the sealed containers. Exposure to air will  
cause progressive decomposition—rapidly for the powder,  
more slowly for the solution.

Hydrogenating

OILS?

Use **HARSHAW**  
**Rufert Nickel**  
**Catalyst Flakes**

**IDEALLY COMBINING THE FOUR "MUSTS"  
REQUIRED BY OIL HYDROGENATORS—**

1. Uniform, predictable behavior.
2. High selectivity over a wide range.
3. Strong, rugged activity even at low temperatures  
and pressures.
4. Excellent filterability.

This versatility makes Rufert the ideal catalyst for selective  
hydrogenation of refined edible oils over wide ranges,  
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