# Paint oil and chemical Review

JUNE 26, 1958

THE BUSINESS AND TECHNICAL MAGAZINE OF THE PAINT, VARNISH AND LACQUER INDUSTRY SINCE 1883


## CHICAGO PAINT GOLFERS AT OPENING GAME AT MEDINAH COUNTRY CLUB, MAY 22



Left to Right, top row, W. J. Carthaus; Wells Martin and James B. Day; W. J. Hough and Dwight Bennett, L. D. Williams, R. M. Neumann, in background, and Arthur Dole, Jr. Middle, J. E. Baechle and E. J. Lewis; W. W. and W. J. Dougherty, R. M. Reed and J. W. Schumacher and Frank Z. Woods. Bottom, L. R. Van Allen; Bob Gardiner; J. J. Rutherford; E. F.

# From the HIGHEST to the LOWEST



there's an

# AZO

lead-free

## ZINC OXIDE

that gives you the exact consistency your paint requires

**OTHER GRADES OF AZO ZINC OXIDES IN A WIDE RANGE OF OIL ABSORPTIONS**

Where necessary to meet your requirements we can select within grades the *exact* degree of desired oil absorption.

**NOTE:** AZO paint grade zinc oxides available as AZODOX (de-aerated). AZODOX has twice the apparent density, half the dry bulk of conventional oxides.

1ST

American Zinc was the first, *and is still the only* producer of acicular lead-free zinc oxides covering a wide range of oil absorptions from high to low *and including the intermediate ranges.*

*For Example:*

**When high consistency is wanted, use...**

AZO ZZZ-22

This is the original high oil absorption acicular zinc oxide. The unusual weathering properties imparted to paints by AZO acicular type zinc oxides are present to the highest degree in AZO ZZZ-22.

**When very low consistency is wanted, use...**

AZO ZZZ-55 or AZO ZZZ-55-LO

Highly recommended for general paint formulations where very low oil absorption zinc oxide is desired. Absence of colloidal fines assures good weathering characteristics. Round particle shape.

American Zinc sales company

*Distributors for* AMERICAN ZINC, LEAD & SMELTING COMPANY
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Established 1883

# PAINT, OIL AND CHEMICAL REVIEW

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## The Second Half of the Year

FINANCIAL authorities are particularly unanimous in the statement that business in general is in far better condition than was predicted or expected six months ago. At the turn of the year all the accepted signs indicate a greater activity than has existed in midsummer for some years past. In fact there has been no let up in production such as is customary at this period. All available indications show an extraordinary high level of manufacturing production. This is true of steel the great standard indicator of conditions and of a great many other basic materials. Steel shows an increase of more than 16 per cent over the normal average six months increase. Another interesting fact is, that this high production average has come at a time when the money market is high enough to call out criticism and protest from many financiers particularly those interested in Wall street. In fact, it is said in some quarters that the largely increased demand for industrial capital is the real cause of the high money market and that the stock exchange speculators are taking a dose of the same medicine which they have wished on producers in many times gone by when they have shot up the price of call money. As to the prospect for the next six months there is every reason to believe that it will complete a banner year in our own as well as most of the big key industries. The general demand is far above normal summer slackness. An unprecedented high degree of prosperity exists in both manufacture and finance and the half-year mile-post has been passed triumphantly without any sign of disturbance in the near offing or the far distant future.

## Lead Market Slump Hits Eagle Picher Earnings

Cincinnati, May 15.—Despite an operating profit of $14,208 recorded in March, Eagle-Picher Lead Company showed a consolidated net loss for the quarter of $482,350 against $463,015 for the same period last year.

The company had a net loss from operations of $37,303 for the quarter after depreciation and depletion, but inventories, due to depressed metal prices caused an additional loss of $445,047. The March operating profit of $14,208 was offset by deficits of $24,308 and $27,203 for January and February, respectively.

A. E. Bendelari, president, stated that considering the recent activities effecting economies in administration and operation, the report is quite satisfactory. The company is in excellent condition, he said, and through the administration and research department will be able to take advantage immediately of any general business improvement.

## Archer Paint and Varnish Assets Sold

A creditor's sale of the assets of the Archer Paint and Varnish Company was held at the company's plant, 7402 Archer Ave., Summit, Ill., on Tuesday, May 28. The sale under direction of Harry W. Cline, manager Adjustment Bureau, Chicago Association of Credit Men netted some $3200.

## Archer-Daniels-Midland Co. Omits Quarterly Dividend

Minneapolis, Minn., April 4.—The board of directors of Archer-Daniels-Midland Company voted this week to omit the quarter of 50 cents a share due at this time. Earnings for the six months ended Feb. 28 amounted to $457,820, equal to 59 cents a share on the common, the company announced. This compares with net of $806,160, or $1.22 a share, for the same 1930 period. The regular quarterly was voted on the preferred.

## Paint Prices Cut Sharply by Canadian Company

Montreal, Que., Dec. 27.—Sherwin-Williams Company of Canada, Limited, has announced a reduction on practically all of its lines which ranges from 40 cents per gallon on standard lines of paints to a general downward revision in quotations for varnish, enamel and wall paints.

This downward revision carries paint prices to the lowest point in 13 years. Present prices are $3.50 per gallon as compared with a high of $5.30 in 1920

Raw materials are also at the lowest level for some years, linseed oil being quoted wholesale in Montreal at 68 to 69 cents per gallon, comparing with a high of $2.70 in 1919 while turpentine is selling at 60 cents per gallon wholesale as against 80 cents at the beginning of the current year and $2.65 in 1920.

## Devoe & Raynolds Earnings Drop Sharply

The Devoe & Raynolds Co. reported, for the fiscal year ended November 30, 1930, a deficit of $404,451 after all charges and common and preferred dividends, compared with $378,496 surplus in 1929. The statement showed an extremely sharp decline in net income as compared with that of the previous fiscal year ,being $132,299 against $1,085,615. Carrying the comparison further, the report for the fiscal year showed a deficit of 22 cents per share against a profit of $4.52 a share in 1929 on the combined A and B classes of common stock, after payment of preferred dividends. While the preferred dividends were paid regularly

## Zinc Price Falls to Lowest Point Since 1902

The price of Western slab zinc, last week declined to the lowest price since 1902, 3.90c per pound, East St. Louis, or 4.25c, New York. The drop followed the issuance of zinc statistics for March by the American Zinc Institute. Though the trends of the figures had been favorable the net change was evidently too small to be considered satisfactory. In 1902 the price of zinc dipped to 4.10c per pound, New York. The lowest price of the present generation was 3.10c, New York, in 1895, while the highest was 27½c per pound in 1915, during the war scarcity of materials generally.

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# PRESENT DIFFICULTIES TEMPORARY, SAYS SECRETARY LAMONT WHO FEELS AMERICA WILL LEAD WORLD RETURN

# HOUSES NEEDING PAINT WILL SOON FORCE MONEY OUT OF STORAGE, ADVERTISING EXPERT AVERS

## Paint and Varnish Sales Drop Lower in 1931

Washington, D. C., Feb. 13.—Sales of paint, varnish and lacquer products in 1931 showed a heavy decline from the preceding year, it is indicated by figures compiled by the United States Census Bureau on the basis of returns from 588 establishments in various centers.

Sales of the reporting establishments, the bureau announced, totaled $278,381,754 for the year, against $348,400,057 in 1930 and $435,101,295 in the year preceding.

Details of sales by months, over a period of four years, are given by the bureau in the following table:

Trade, Industrial and Unclassified Sales, by Months.

| Year and Month | Total Sales Reported by 588 Establishments | Unclassified Sales Reported by 273 Establishments | CLASSIFIED SALES REPORTED BY 315 ESTABLISHMENTS | | | |
|---|---|---|---|---|---|---|
| | | | Total Sales | Trade Sales | Industrial Sales | Unclassified Sales |
| **1928** | | | | | | |
| January | $ 29,211,288 | $ 9,041,188 | $ 19,880,800 | $ 9,834,688 | $ 9,886,191 | $ 96,071 |
| February | 30,769,080 | 9,569,861 | 21,207,479 | 11,869,306 | 9,880,139 | 158,044 |
| March | 37,284,209 | 11,938,444 | 25,281,765 | 13,499,868 | 11,704,680 | 127,977 |
| April | 36,188,288 | 13,248,847 | 23,834,856 | 14,413,168 | 11,286,687 | 135,997 |
| May | 40,889,888 | 14,889,687 | 30,440,168 | 18,128,178 | 12,240,887 | 184,106 |
| June | 41,708,447 | 13,471,844 | 28,230,821 | 16,993,810 | 12,063,243 | 143,808 |
| July | 33,448,188 | 11,480,872 | 21,967,886 | 11,847,808 | 10,818,888 | 104,888 |
| August | 33,171,888 | 12,111,838 | 21,059,823 | 13,134,884 | 12,787,804 | 138,888 |
| September | 34,921,888 | 11,897,838 | 23,023,970 | 11,998,880 | 11,818,897 | 116,888 |
| October | 38,087,908 | 11,308,199 | 24,719,704 | 13,831,847 | 11,734,188 | 153,884 |
| November | 29,008,871 | 9,285,841 | 20,617,880 | 10,488,888 | 9,947,884 | 177,488 |
| December | 26,054,478 | 8,084,714 | 18,009,761 | 8,738,186 | 9,110,273 | 164,888 |
| Total (Year) | $ 480,884,088 | $ 138,308,819 | $ 285,821,843 | $151,285,884 | $138,480,038 | $ 1,718,807 |
| **1929** | | | | | | |
| January | $ 30,844,898 | $ 9,649,934 | $ 21,194,768 | $ 10,198,808 | $ 10,843,738 | $ 138,888 |
| February | 30,843,885 | 9,338,147 | 21,829,808 | 10,434,108 | 10,844,090 | 148,818 |
| March | 38,779,084 | 12,938,110 | 26,844,944 | 13,783,484 | 12,881,884 | 171,884 |
| April | 43,089,888 | 13,880,047 | 29,849,808 | 18,947,883 | 13,410,880 | 190,888 |
| May | 44,888,088 | 14,045,883 | 32,179,770 | 18,078,070 | 13,884,748 | 218,884 |
| June | 41,848,878 | 13,880,103 | 28,137,788 | 18,814,148 | 13,488,078 | 800,848 |
| July | 38,031,844 | 12,044,818 | 25,948,888 | 12,808,148 | 12,800,877 | 339,838 |
| August | 43,084,788 | 13,017,878 | 29,077,190 | 16,444,040 | 12,888,434 | 303,898 |
| September | 36,818,788 | 11,888,873 | 24,887,887 | 12,840,808 | 11,888,000 | 888,888 |
| October | 38,918,884 | 11,878,881 | 24,841,883 | 12,888,178 | 11,714,818 | 878,804 |
| November | 28,144,881 | 8,087,788 | 19,078,808 | 10,888,788 | 8,488,788 | 804,781 |
| December | 22,804,844 | 8,488,780 | 13,888,084 | 7,848,788 | 7,808,887 | 809,888 |
| Total (Year) | $ 435,101,888 | $ 136,788,488 | $ 288,867,887 | $155,878,848 | $140,078,888 | $ 8,714,884 |
| **1930** | | | | | | |
| January | $ 34,830,818 | $ 8,188,888 | $ 18,401,730 | $ 9,230,870 | $ 8,888,110 | $ 188,880 |
| February | 28,284,178 | 8,878,088 | 20,008,188 | 10,848,407 | 9,343,888 | 88,788 |
| March | 33,888,841 | 10,488,881 | 23,281,880 | 12,888,877 | 9,488,888 | 888,814 |
| April | 32,881,877 | 12,231,168 | 20,880,814 | 13,787,848 | 10,847,814 | 888,887 |
| May | 37,081,844 | 8,474,188 | 27,887,444 | 17,284,488 | 9,807,988 | 888,888 |
| June | 34,488,410 | 12,780,840 | 23,748,870 | 14,848,471 | 9,881,998 | 884,804 |
| July | 30,845,488 | 9,880,077 | 19,873,888 | 10,987,848 | 8,808,488 | 848,848 |
| August | 37,938,838 | 8,878,938 | 18,841,800 | 10,884,788 | 8,088,888 | 888,898 |
| September | 32,178,883 | 9,838,808 | 18,840,787 | 10,881,788 | 7,748,087 | 848,888 |
| October | 34,878,418 | 8,888,848 | 17,988,878 | 10,140,878 | 7,818,488 | 888,811 |
| November | 18,908,848 | 8,087,787 | 13,881,808 | 7,848,808 | 8,884,888 | 147,888 |
| December | 16,884,188 | 5,088,988 | 11,800,178 | 8,171,484 | 8,888,880 | 140,884 |
| Total (Year) | $ 348,400,887 | $ 110,180,478 | $ 238,888,882 | $138,810,888 | $100,484,018 | $ 8,884,887 |
| **1931** | | | | | | |
| January | $ 20,880,808 | $ 6,784,018 | $ 13,886,480 | $ 7,888,887 | $ 6,048,880 | $ 141,848 |
| February | 20,908,478 | 6,838,087 | 14,848,408 | 7,848,887 | 6,881,847 | 143,888 |
| March | 26,788,488 | 8,788,481 | 17,972,141 | 10,480,788 | 7,480,788 | 80,888 |
| April | 31,847,488 | 10,178,885 | 21,488,188 | 13,477,148 | 7,888,880 | 818,788 |
| May | 33,408,878 | 10,808,871 | 22,800,807 | 14,488,880 | 8,070,847 | 88,880 |
| June | 28,887,188 | 9,440,988 | 19,188,188 | 11,011,148 | 7,880,771 | 84,848 |
| July | 23,408,808 | 7,488,888 | 15,118,847 | 8,808,880 | 6,884,800 | 78,887 |
| August | 21,888,148 | 7,081,818 | 14,841,884 | 8,881,884 | 5,784,108 | 88,488 |
| September | 21,948,888 | 7,888,104 | 14,878,884 | 8,888,888 | 5,888,888 | 88,884 |
| October* | 20,741,818 | 6,784,411 | 13,988,804 | 8,488,488 | 5,848,780 | 88,888 |
| November* | 16,488,187 | 5,078,888 | 11,418,884 | 6,814,888 | 4,488,181 | 80,488 |
| December** | 13,488,880 | 3,919,708 | 9,808,948 | 5,818,877 | 4,448,178 | 48,888 |
| Total (Year) | $ 278,381,784 | $ 90,284,841 | $ 188,187,818 | $118,804,888 | $ 94,788,888 | $ 1,188,700 |

*Revised. **Preliminary.

## Santoro Made Technical Head by Murphy Varnish



W. E. Santoro

W. E. Santoro, a member of the technical staff of Murphy Varnish Co., Newark, N. J., for the past eight years, has been advanced to the position of technical director of the company's varnish department. In announcing the promotion, Paul S. Kennedy, vice president of the company, states that Mr. Santoro has been responsible for some very outstanding developments, particularly in the field of synthetic and baking varnish base products, and is the youngest man who has ever occupied this position with the Murphy company. The young man graduated from Pratt Institute in 1925 and has been working continuously since in the laboratories over which he now has charge.

## McInnes Succeeds Wafer as Rossville Sales Manager

New York City, May 1.—Joseph M. Wafer has resigned his position as sales manager of the chemical division of the Rossville Commercial Alcohol Corporation to take a similar position with the Industrial Chemical Sales Co. with whom he was formerly associated.

He will be succeeded by James McInnes, Jr. Mr. McInnes is well known throughout the alcohol trade, having been connected for a number of years with the old Seaboard Chemical Co., headed by Charles L. Read.

## Milton K. Pine Advanced by The Muralo Company

Milton K. Pine, well known member of the sales staff of the Muralo Company, Inc., New Brighton, Staten Island, New York, and son of John H. Pine, Chicago manager for that company, has been made assistant to his father with headquarters at Chicago and is moving his family here

The announcement of the promotion was



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made last week by S. C. Dunning, sales manager for the Muralo Company, who stopped off here for several days to officially install the young gentleman in his new job and then accompanied him to the Master Painters' convention at Minneapolis. The younger Mr. Pine, who shares with his esteemed parent a wide acquaintance in the trade, has been on the staff of the Muralo Company for ten years traveling eastern territory out of the factory with headquarters at East Aurora, New York.

Since an attack of illness a while back necessitated that his father relinquish the strenuous duties of travelling, Milton has been doing double service spending part of his time on his own territory and a part looking after affairs here. Under the new arrangement he will be able to give his whole attention to the growing demands of the company's customers who depend on the Chicago office and warehouse, 317 No. Wells, and during his absence from the city, routine affairs will be taken care of as in the past by Miss A. E. Metz, who has been with the Chicago branch for a number of years.



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### Homeward Bound

P. W. Meyeringh, director of the foreign relations department of the Hercules Powder Co., Wilmington, Del., and Mrs. Meyeringh sailed for Europe on the Hamburg American liner Hansa, sailing from New York, Feb. 8, after a short visit in the United States.

### Married

John L. Blake, salesman for the Arter Paint and Glass Co., of Charleston, W. Va., and Miss Virginia M. Blake, also of Charleston, were married recently.

### Another Job

Ernest T. Trigg, president of the National Paint, Varnish and Lacquer Association, was elected a director of the Pennsylvania State Chamber of Commerce, for a four year term, at the 19th annual meeting at Harrisburg.

## Sears, Roebuck Buys Stock in United Wall Paper Inc.

New York, Aug. 19.—Sears, Roebuck & Co. have acquired a substantial common stock interest in the United Wall Paper Factories, Inc., it was learned, coincident with the announcement that the United company has contracted with the Chicago mail order house to supply its requirements for the next ten years. The United organization also has contracted with Montgomery Ward & Co. to supply about 75 per cent of the latter's requirements for five years.

### Chi-Namel Additions

J. R. Barnes, formerly sales manager for Valentine & Co., has been named to a similar post with Chi-Namel Co., Cleveland, according to announcement by Grover M. Hermann, president. Other additions to the staff are F. H. Gallup, Philadelphia; C. T. Le Viness, Metropolitan New York; S. B. Evans, Eastern Kansas, and F. W. Long, Central Ohio.

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### Back on Job

Ernest H. Morgan, of Ernest H. Morgan Co., secretary of the Portland (Ore.) Paint, Varnish and Lacquer Association, has returned to his desk following an attack of influenza.


# Minimum after-yellowing

## Titanox brings new stability to 4-hour enamels

TITANOX

**FOR USE IN:**

Ready mixed paints . . . Paste and semi-paste paints . . . Enamels . . . Four-hour enamels . . . Enamel undercoats . . . Floor and concrete enamels . . . Color varnishes . . . Industrial mixed paints . . . Lacquers, etc.

VEHICLES do not react with this modern pigment . . . it is chemically stable and inert . . . its high tinting strength efficiently masks after-yellowing in the enamel.

Titanox may be used with any of the grinding liquids, varnishes or oils, without danger of chemical reactions which result in after-yellowing, thickening and livering. It will give your enamels opacity with less pigmentation . . . brilliant whiteness and higher illumination. It will produce a high gloss enamel which will remain white.

This white, very fine uniform pigment is composed of pure Titanium Oxide, precipitated upon and coalesced with precipitated Barium Sulphate (blanc fixe).

The unusual tonal properties of Titanox promote clarity, brilliance and true undertones, when used as a base for tinted enamels.

Use Titanox to get these qualities for your products. It is efficient and economical. Write today for details and prices.

## TITANIUM PIGMENT CO., INC.

MANUFACTURERS OF

TITANOX — TITANIUM CALCIUM PIGMENT — PURE TITANIUM OXIDE

60 John St., New York, N. Y.—Carondelet Station, St. Louis, Mo.—P. O. Box "D" Niagara Falls, N. Y.

Pacific Coast Distributors: National Lead Co. of Calif., 235 Montgomery St., San Francisco

Canadian Distributors: Wilson, Paterson, Gifford, Limited—101 Murray St., Montreal; 275 Campbell Ave., Toronto

# New Resin Broadens Varnish Possibilities

The development of products of the phenolic viscous resins and their use in liquids suitable for the manufacture of varnish and lacquers is one of the most recent and interesting new steps that have been taken in our industry.

The adaptability of many of these resins with rosin to the formulation of quick drying varnishes under the Albert patents has been demonstrated, but the durability of the product where unduly large quantities of rosin are used, has in some cases been disappointing.

The recognized properties possessed by the phenol type such as hardness and waterproofness make them of great value but their insolubility in the ordinary drying oils has, until recently, prevented their use becoming general.

The Bakelite laboratories have been working on this problem for several years and have only quite recently arrived at a point where they could announce a product of a more concentrated form, and suitable for use in making varnishes and lacquers, and while this resin is radically different from others used for the purpose it would seem that no difficult operations are involved and that the process of manufacture is, if anything, more simple than it has been hitherto.

In the newest fully tested type[1] the resin is introduced as a viscous liquid and on application of heat from 250° F. upward it becomes steadily harder and tougher. This is due to a polymerization of the resin and not to oxidation, and the resin itself contains some tung oil, so contrary to ordinary varnish practice, and the hardness of the resin itself has no connection with the hardness of varnish films made from it.

The same is true of nitrocellulose lacquers containing the resin—in which case the resin acts in part as a plasticizer and produces a very hard lacquer—and it will be found that less plasticizer will be required than with other hard resins like damar or ester gum.

This resin has an acid number between twenty-five and thirty but has very little corrosive action due to the weak acid reaction of phenol. Both rosin and ester gums retard the polymerization of wood oil but the new phenolic resin has practically no retarding effect and in large proportions, seems to have just the opposite.

It must be remembered that the new method differs slightly in technique from ordinary varnish making. Instead of running the temperature up to 565° to insure against gas-checking some varnishes, particularly those containing large pencentages of XR-302 give excellent results as low as 320° F. and the viscosity can be regulated by the time of heating. High temperatures may be avoided and no difficulties in control experienced whatever. The process becomes just as easy as in ester gum-wood oil products and the cook can be checked immediately when desired by direct addition of solvents.

Among the varnish products which can be easily produced with this resin are a "two-hour" varnish, a "four-hour" varnish, a spar varnish, a long oil finishing varnish and a nitrocellulose lacquer.

The following formulae are suggested only, and can be varied to suit individual requirements:

### Two-Hour Varnish

The following procedure will yield a varnish which dries to a non-tacky film in one hour or less, hard enough to recoat in two hours and fairly hard in four hours. Although short in oil the coating is tough, does not become brittle on ageing and its durability is equal to or better than a long oil ester gum tung-oil spar varnish. Its water and alkali resistance are also exceptionally good.

100 lbs. XR-302 Resin
80 lbs. Xylol or Toluol
40 lbs. Mineral Spirits
0.25 lbs. Cobalt Linoleate Paste Drier

Heat the Resin in an open kettle to 330° F. and hold at this temperature until a sample on cooling is a tough, rubbery solid, practically free from tackiness. Then add thinners and finally the drier. Local hot spots must be avoided and the resin should be well stirred during the cooking. A steam jacketed kettle is the best type of apparatus for making this varnish, though it can be handled satisfactorily in an ordinary varnish kettle over a slow fire and with shields to prevent local over heating. Other driers may be used if desired, though they should preferably be paste or liquid driers and added to the cold varnish.

This varnish is especially suitable for industrial uses, for rapid drying enamels, automobile undercoats, etc.

### Spar Varnish

A varnish suitable for use on wood outdoors under the most severe weather conditions may be made as follows:

100 lbs. XR-302 Resin
60 lbs. China Wood Oil
20 lbs. Bodied Linseed Oil
150 lbs. Mineral Spirits
30 lbs. Cello Solve[2]
0.45 lbs. Cobalt Linoleate Paste Drier

Heat the Resin and wood oil together to 450° F. and hold until a firm string forms on cooling and testing a sample. Then add linseed, thinners and driers.

This varnish has sufficient elasticity to stand the expansion and contraction of wood and will give very satisfactory service under most severe weather conditions.

### Four-Hour Varnish

110 lbs. China Wood Oil
20 lbs. Bodied Linseed Oil
50 lbs. Ester Gum
100 lbs. XR-302 Resin
200 lbs. Mineral Spirits
0.85 lbs. Cobalt Linoleate Paste Drier
1.00 lbs. Lead Linoleate Paste Drier

Heat the wood oil, linseed oil and ester gum to 565° F. and hold until a drop on cooling on glass begins to form string. Pull from fire and add the Resin slowly with stirring. Body at 420° F. to desired consistency. Add thinners and driers.

This produces a high grade general utility varnish of light color and excellent toughness and durability. It dries hard enough to recoat in about four hours under average drying conditions.

[1] This resin is manufactured by special processes owned by the Bakelite Corporation and is technically known as XR-302.
[2] Ethyl Ester of Ethylene Glycol.

### Long Oil Finishing Varnish

The following formula is suggested where a very flexible varnish is required:

150 lbs. China Wood Oil
100 lbs. Bodied Linseed Oil
100 lbs. XR-302
10 lbs. Lead Resinate
0.75 lbs. Cobalt Linoleate Paste Drier
300 lbs. Mineral Thinner
50 lbs. Turps.

Heat Wood Oil and half of Linseed Oil to 565° F. and hold until a drop on cooling on glass begins to form string. Add Lead Resinate and balance of Linseed Oil. Then add XR-302 slowly with stirring. Finish bodying to desired consistency at 450° F. Add thinner and cobalt drier.

### Adaptability

The above formulae indicate in a general way the wide adaptability of this resin in varnish making. It may be employed to advantage in almost any type of varnish, and even in relatively small amounts is said to improve durability, toughness, alkali resistance and drying time.

### Use in Nitrocellulose Lacquers

XR-302 is compatible with nitrocellulose in all proportions and is soluble in the commonly used lacquer solvents. When used in relatively large proportions, say two to four parts resin to one part nitrocellulose, exceedingly durable lacquers are produced, which are also very resistant to moisture. Even when used clear (unpigmented) these lacquers stand outdoor exposure very well and may be used successfully as gloss finishing coats over pigmented lacquers for automobiles, etc.

Clear lacquers containing XR-302 may also be used for coating brass and silver goods to prevent tarnishing and "spotting out." Both sulfur and moisture spotting are very effectively prevented.

Lacquers containing large proportions of XR-302 also have the advantage that their solid content at spraying consistency is higher than is possible with most other resins and therefore they build up much more rapidly, saving thinner and labor and producing excellent depth and gloss.

## J. A. Myers Back from Hospital

J. A. Myers, Savannah vice-president and manager of the Gillican Chipley Sales Co. that city who has been on the hospital list for several weeks is reported recovered sufficiently to spend some time at his business duties.



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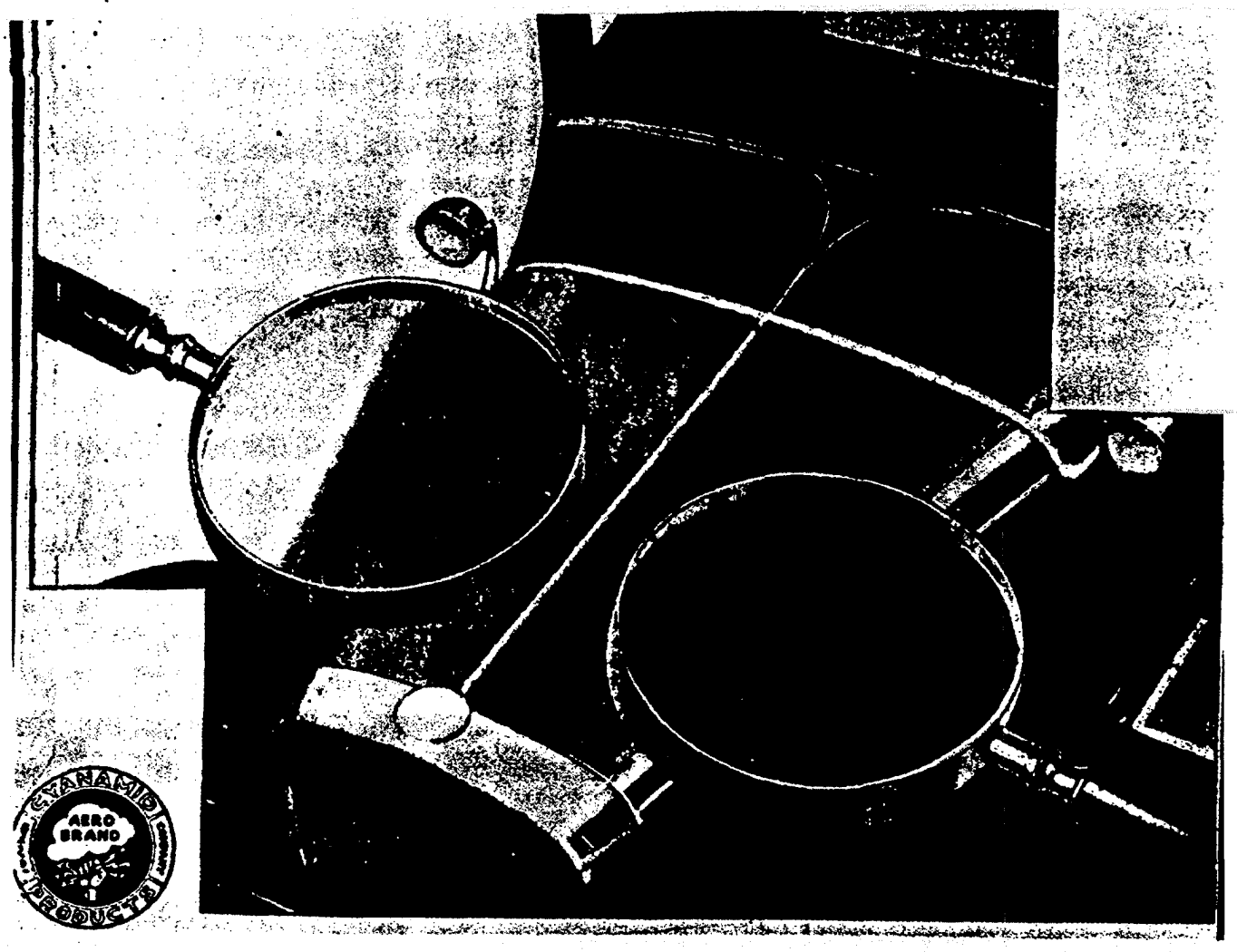


# This Test Proves No Other Finish Can Equal Rezyl Endurance

The Sun, the Rain, and the Dust were called upon to decide which finish was better for automobiles. Half of the hood was finished with Rezyl automotive lacquer—the balance of the body was finished with an ordinary automotive lacquer. Months of exposure in a southern climate scarcely touched the Rezyl lacquer finish shown magnified at the right of the illustration—there is no cracking . . . no checking . . . no chalking.

Rezyls have other advantages entirely aside from their durability. They are true solvents of nitrocellulose; in all proportions they are compatible with this ingredient and reduce the amount required in either clear or pigmented Lacquers.

The excellent results obtained with Rezyls by leading makers of Lacquers show that such Lacquers are without an equal for indoor or outdoor use on wood and metal.

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# NATIONAL RETAILERS' ASSOCIATION LAUNCHED; CHICAGOAN ELECTED FIRST PRESIDENT

Leo E. Schroeder, vice president and treasurer of George E. Watson Co., Chicago, was unanimously elected president of the new National Retail Paint and Wallpaper Dealers' Association at the organization meeting of that body at the Palmer House, Chicago, Feb. 22.

The meeting was the result of an invitation sent by Claude R. Myers, proprietor of the Claude R. Myers Co., Wichita, Kas., to retailers throughout the country to meet in Chicago to discuss the formation of local and a national organization.

About thirty members and club representatives were present. The entire day was spent in discussing the need for the organization and its method of operation. A constitution and by-laws, previously drafted by Mr. Myers, were revised and adopted. Under these the country is divided into five regions, with a first and second vice president elected from each region and a secretary-treasurer, to be appointed by the executive committee. The vice president of the Central region is to be the senior vice president. The meeting accepted the nominating committee's choice and elected Claude R. Myers, Wichita, Kas., as Central region vice president, and Nels Malmquist, Bachli Paint Co., Chicago, second vice president. Joel Lichten, Brooklyn, was chosen first vice president for the Northeastern region, with the second vice president to be named by him. Paul M. Wilson, Wilson-Geyer Co., Jackson, Tenn., was named first vice president for the Southeastern district and will name the second vice president for his area. Arch B. Hunsley of Hunsleys, Inc., Amarillo, Texas, named first vice president for the Southwestern region, will name the second vice president for that district. For the Northwestern region, John Jourgenson, Casper, Wyoming, was elected first vice president, and Colin S. Gordon, Tozer Company, Inc., San Francisco, second vice president. The meeting voted to make annual dues for individual dealers at $5.00 per member and provided a nominal assessment of $2.50 per member for local affiliated organization memberships. There will be no associate memberships. The conference had the counsel and cooperation of M. Q. Macdonald of the National Paint, Varnish and Lacquer Association, and of E. R. Drake, secretary of the National Wholesale Paint Association, Inc., who remained over for the gathering following the wholesalers' convention.



Leo E. Schroeder

Prior to adjournment the meeting voiced its approval of holding a convention in Chicago in the late summer. By this time the membership ranks will be well filled, it is expected, and a sizeable conference for the discussion of pertinent topics is expected.

## NEW OFFICIAL FAMILY OF CHICAGO PRODUCTION CLUB



Left to right, President F. C. Wright, Barrett Varnish Company; secretary, N. J. Carow, Devoe & Raynolds Co.; treasurer, Wm. Poull, John A. Steen Varnish Co.; and vice-president, O. P. Clipper, Adams & Elting Co.



GL D32432

## WELCOME TO THE NEW PRESIDENT

● President Roosevelt took up the reins of government under conditions in many respects more difficult than have ever been met by an incoming president.

Immediately following the inauguration ceremonies he was called to struggle with a nation-wide moratorium, which is expected to last for from four days to two weeks.

There is no expectation of serious loss but the withdrawal of large sums by foreign interests together with considerable local disturbance in banking centers led to the conditions which resulted in the general temporary withdrawal of credits.

Another occurrence which was both sad and shocking was the sudden death of Thomas J. Walsh of Montana, who was probably the most outstanding man Mr. Roosevelt had chosen for a cabinet position.

Still a third disturbing condition was the attack on the president by a madman in Florida and the subsequent death of Mayor Cermak of Chicago who was shot while greeting the new executive following the informal acknowledgement of Miami's welcome.

In spite of these untoward beginnings the President has taken hold actively and constructively and has justified the faith of his friends and the country at large. He will, we anticipate, do all that could be expected under circumstances of far more than ordinary difficulty.

### PAINT CORPORATIONS SUBJECT TO 12½ TO 15% INCOME TAX

Corporations in the paint and allied industries will be subject to income tax at rates ranging from 12½ to 15 per cent, under the new revenue bill as enacted by Congress in the closing days of the session.

These rates represent a compromise between the House proposal of 12¼ per cent and 14¼ per cent and the Senate scale ranging from 12½ to 15½ per cent.

## A Good New Paint But—!

A NEW silicon ester paint is reported to have been developed recently by well known research chemists in England which seems to be of genuine value. It is said that one of its greatest advantages is a strong drying power, which makes it practically insoluble within two or three hours of application and a second coat is applicable within an hour, which covers completely and shows no signs of running. It is also extremely opaque and will continue to harden continuously for four months without any deterioration after that period. It is considered of exceptional value for application on stone or brick surfaces for the purpose of preventing decay and will not blister or crumble under any ordinary application for cleaning and retains its brilliancy for a long period.

With all these good qualities it would seem almost miraculous except for the fact that at present the cost is so high as to make it almost prohibitive except for the preservation of valuable relics and monuments, but this is thought to be something which time and further research may remedy. Meanwhile the American branch of the painting industry will watch the first samples which arrive in this country with exceptional interest.


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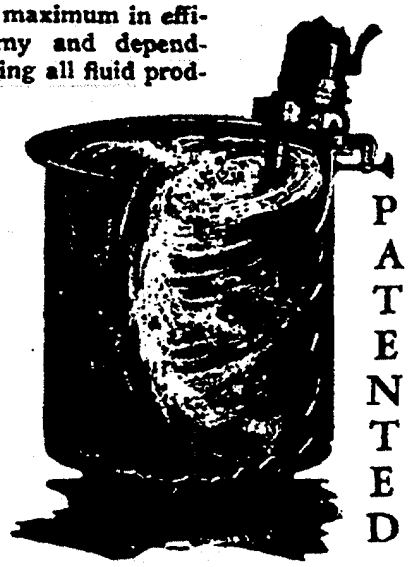

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## Television in Business

MOST of us have only a misty notion what television means.

It is the casting of a picture of an object in one part of the world to some other part, to be sure, but why? What has been only a scientific curiosity is soon to take a place as one of the new business developments of this wonderful century.

Dr. David Sarnoff, president of the Radio Corporation of America, is quoted as saying that by 1933 there will be "several television broadcasting stations in operation" in different cities of this country and it seems that these stations will be broadcasting pictures of groups of people like the actors in a play who will act at regular times as entertainers or distributors of information or news. These will have to be connected with receiving appliances sufficient in number to make the enterprise profitable and to be profitable it will have to be popular.

Dr. Sarnoff and Dr. Goldschmidt, the vice-president of the company, have committed themselves to the statements that there will be a broadcasting network sufficient in scope to carry on such a service between a number of different cities.

It is said to be the definite policy of the Radio Corporation not to commercialize its television discoveries until it is in a position to provide its customers with a complete television broadcasting service which will compare in entertainment and educational popularity with the programs now being broadcast by the large radio stations.

Television broadcasting is being conducted at present by independent companies whose programs have an appeal for those attracted by the novelty and experimental nature of television in its early stages. In the opinion of the Radio Corporation, this audience is necessarily limited and it would not be profitable for the corporation itself to market sets unless it could reach a wider audience.

Obviously the establishment of transmitting stations and the creation of programs for the entire United States is a lengthy and expensive job. Yet without these facilities television receivers are of no value to the general public. The programs must be so arranged that they will co-ordinate properly sight and sound so that those who hear only the audible portion of the program (without seeing the television pictures) will nevertheless find the sound of interest.

Whether there will also be a specific business use for television between different firms, such, for instance, as for the purpose of matching colors and patterns in different parts of the country, remains to be seen.

### NRA STRIPPED OF POWERS, TO HANG ON 'TILL APRIL

Beset by grave uncertainties as to its future, the National Recovery Administration on June 17 started in on what will probably be the final phase of its tempestuous career.

Stripped of its powers to impose and enforce codes, without any definite plans for the future and with little likelihood of its hands being strengthened by new legislation, the NRA now is but a shell of the powerful weapon for industrial control which was visualized two years ago by General Hugh S. Johnson, under whose services as Administrator nearly 600 codes were developed.

Under the legislation just enacted by Congress, the administration is continued for 9½ months—until April 1, 1936—leaving the way open for Congress, next session, to enact such legislation as then seems desirable if the effort is to be continued. But, faced with the definite limitations laid down by the United States Supreme Court May 27 in its decision in the "sick chicken" case, there seems little probability that any determined effort will be made to revive the NRA.

### COLD WATER PAINT SALES SHOW GAIN IN MAY

May sales of cold water paints and calcimines showed a decided increase over the preceding month, but plastic paint sales declined, according to reports filed with the Census Bureau by 53 manufacturers.

Cold water paint sales for the month totaled 1,812,052 pounds valued at $128,461 against 1,733,288 pounds valued at $113,202 in April and 1,274,552 pounds valued at $89,051 in May, 1934, and calcimine sales totaled 8,608,475 pounds valued at $376,644 against 7,579,518 pounds valued at $332,343 the preceding month and 6,449,747 pounds valued at $290,390 last year. Plastic paint sales however, were but 481,563 pounds valued at $35,563 against 527,234 pounds valued at $36,653 in April and 542,250 pounds valued at $39,139 in May of last year.

### Chicago Oil and Paint Material Market

The demand for all the paint materials, generally speaking, is about the same as last week. Pigments are still enjoying a good call. Zinc oxides, however, have been reported to have shown an improvement. Titanium pigment has reached its peak for the spring demand, it was reported, but traders state that the call for their products has not as yet suffered any noticeable let-down. Dry colors also have been revealed to show a slight improvement in business. The month of April, dry color interests disclose, was a bit disappointing. They blame this condition on the bad weather.

## Paint and Varnish Sales Show 27 Per Cent Gain for 1934 Over 1933

Paint, varnish and lacquer products sales for the 12 months of 1934 and the preceding years of 1933 and 1932 have been classified by the Bureau of Census as shown below.

The information is based on data reported by 586 identical establishments and shows by months the total volume of sales reported. 242 establishments were not able to classify their sales into trade and industrial, and 344 establishments classified theirs into trade and industrial (paint and varnish, and lacquer). The 1934 total is 27 per cent greater than that of 1933, and 39 per cent greater than that of 1932.



GLD32434

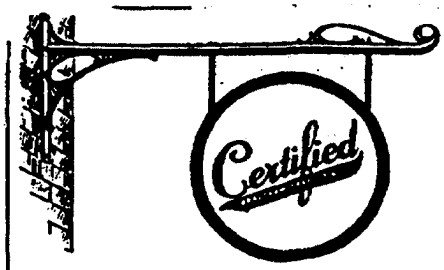
# Table of Equivalents of Weights and Measures

**Compiled by E. Goose, Scarfe & Co., Brantford, Ont., Canada**

Gallons, eighths, and fluid ounces; pounds, ounces and grams and various fractions thereof are used in the paint laboratory and it is often necessary to know the relation between these or to convert them to decimals.

The subjoined table gives the equivalence of portions of a gallon, (both imperial and U. S.), expressed as fluid ounces, in vulgar fractions and in decimals. Also portions of a pound adv. expressed in ounces, grams, 64ths and decimals, and also portions of an ounce adv. expressed in grams, 64ths. and decimals. For example take the seventh line of the table. This tells us that 14 fl. oz. U. S. equals 7/64 gal. equals .109375 gal.; also 17½ fl. oz. equals 7/64 imperial gal equals .109375 imperial gal.; also 49.610 grams equals 1¾ oz. adv. equals 7/64 lb. adv. equals .109375 lb. adv.; also 3.0997 grams equals 7/64 ounce adv. equals .109375 oz. adv.

| Decimal equivalents | First column gives decimal equivalents of 64ths | 32nds | 16ths | First column gives equivalents in decimals of Imperial gallon of fluid ounces | U. S. gallon of fluid ounces | First column gives equivalents in decimals of a pound of grams | ounces | First column gives equivalents in decimals of an ounce of grams |
|---|---|---|---|---|---|---|---|---|
| .015625 | 1 | ... | ... | 2½ | 2 | 7.087 | ¼ | .4429 |
| .03125 | 2 | 1 | ... | 5 | 4 | 14.174 | ½ | .8858 |
| .046875 | 3 | ... | ... | 7½ | 6 | 21.261 | ¾ | 1.3287 |
| .0625 | 4 | 2 | 1 | 10 | 8 | 28.349 | 1 | 1.771 |
| .078125 | 5 | ... | ... | 12½ | 10 | 35.435 | 1¼ | 2.2139 |
| .09375 | 6 | 3 | ... | 15 | 12 | 42.522 | 1½ | 2.656 |
| .109375 | 7 | ... | ... | 17½ | 14 | 49.610 | 1¾ | 3.0997 |
| .125 | 8 | 4 | 2 | 20 | 16 | 56.696 | 2 | 3.543 |
| .140625 | 9 | ... | ... | 22½ | 18 | 63.783 | 2¼ | 3.985 |
| .15625 | 10 | 5 | ... | 25 | 20 | 70.870 | 2½ | 4.428 |
| .171875 | 11 | ... | ... | 27½ | 22 | 77.967 | 2¾ | 4.871 |
| .1875 | 12 | 6 | 3 | 30 | 24 | 85.047 | 3 | 5.314 |
| .203125 | 13 | ... | ... | 32½ | 26 | 92.131 | 3¼ | 5.756 |
| .21875 | 14 | 7 | ... | 35 | 28 | 99.220 | 3½ | 6.199 |
| .234375 | 15 | ... | ... | 37½ | 30 | 106.305 | 3¾ | 6.642 |
| .25 | 16 | 8 | 4 | 40 | 32 | 113.397 | 4 | 7.087 |
| .265625 | 17 | ... | ... | 42½ | 34 | 120.480 | 4¼ | 7.529 |
| .28125 | 18 | 9 | ... | 45 | 36 | 127.566 | 4½ | 7.972 |
| .296875 | 19 | ... | ... | 47½ | 38 | 134.654 | 4¾ | 8.415 |
| .3125 | 20 | 10 | 5 | 50 | 40 | 141.740 | 5 | 8.857 |
| .328125 | 21 | ... | ... | 52½ | 42 | 148.830 | 5¼ | 9.299 |
| .34375 | 22 | 11 | ... | 55 | 44 | 155.914 | 5½ | 9.7428 |
| .359375 | 23 | ... | ... | 57½ | 46 | 163.001 | 5¾ | 10.185 |
| .375 | 24 | 12 | 6 | 60 | 48 | 170.094 | 6 | 10.628 |
| .390625 | 25 | ... | ... | 62½ | 50 | 177.176 | 6¼ | 11.070 |
| .40625 | 26 | 13 | ... | 65 | 52 | 184.262 | 6½ | 11.513 |
| .421875 | 27 | ... | ... | 67½ | 54 | 191.350 | 6¾ | 11.955 |
| .4375 | 28 | 14 | 7 | 70 | 56 | 198.440 | 7 | 12.398 |
| .453125 | 29 | ... | ... | 72½ | 58 | 205.523 | 7¼ | 12.8409 |
| .46875 | 30 | 15 | ... | 75 | 60 | 212.610 | 7½ | 13.2838 |
| .484375 | 31 | ... | ... | 77½ | 62 | 219.497 | 7¾ | 13.726 |
| .5 | 32 | 16 | 8 | 80 | 64 | 226.795 | 8 | 14.174 |
| .515625 | 33 | ... | ... | 82½ | 66 | 233.882 | 8¼ | 14.616 |
| .53125 | 34 | 17 | ... | 85 | 68 | 240.969 | 8½ | 15.059 |
| .546875 | 35 | ... | ... | 87½ | 70 | 248.056 | 8¾ | 15.5007 |
| .5625 | 36 | 18 | 9 | 90 | 72 | 255.143 | 9 | 15.943 |
| .578125 | 37 | ... | ... | 92½ | 74 | 262.230 | 9¼ | 16.3865 |
| .59375 | 38 | 19 | ... | 95 | 76 | 269.317 | 9½ | 16.8296 |
| .609375 | 39 | ... | ... | 97½ | 78 | 276.404 | 9¾ | 17.271 |
| .625 | 40 | 20 | 10 | 100 | 80 | 283.49 | 10 | 17.71 |
| .640625 | 41 | ... | ... | 102½ | 82 | 290.57 | 10¼ | 18.152 |
| .65625 | 42 | 21 | ... | 105 | 84 | 297.66 | 10½ | 18.596 |
| .671875 | 43 | ... | ... | 107½ | 86 | 304.77 | 10¾ | 19.038 |
| .6875 | 44 | 22 | 11 | 110 | 88 | 311.85 | 11 | 19.481 |
| .703125 | 45 | ... | ... | 112½ | 90 | 318.94 | 11¼ | 19.923 |
| .71875 | 46 | 23 | ... | 115 | 92 | 326.03 | 11½ | 20.366 |
| .734375 | 47 | ... | ... | 117½ | 94 | 333.17 | 11¾ | 20.8097 |
| .75 | 48 | 24 | 12 | 120 | 96 | 340.204 | 12 | 21.256 |
| .765625 | 49 | ... | ... | 122½ | 98 | 347.29 | 12¼ | 21.6989 |
| .78125 | 50 | 25 | ... | 125 | 100 | 354.35 | 12½ | 22.139 |
| .796875 | 51 | ... | ... | 127½ | 102 | 362.437 | 12¾ | 22.5819 |
| .8125 | 52 | 26 | 13 | 130 | 104 | 369.534 | 13 | 23.024 |
| .828125 | 53 | ... | ... | 132½ | 106 | 376.61 | 13¼ | 23.4669 |
| .84375 | 54 | 27 | ... | 135 | 108 | 383.696 | 13½ | 23.9098 |
| .859375 | 55 | ... | ... | 137½ | 110 | 390.78 | 13¾ | 24.3527 |
| .875 | 56 | 28 | 14 | 140 | 112 | 398.88 | 14 | 24.796 |
| .890625 | 57 | ... | ... | 142½ | 114 | 403.967 | 14¼ | 25.238 |
| .90625 | 58 | 29 | ... | 145 | 116 | 411.054 | 14½ | 25.6814 |
| .921875 | 59 | ... | ... | 147½ | 118 | 418.141 | 14¾ | 26.1243 |
| .9375 | 60 | 30 | 15 | 150 | 120 | 425.23 | 15 | 26.564 |
| .953125 | 61 | ... | ... | 152½ | 122 | 432.307 | 15¼ | 27.0069 |
| .96875 | 62 | 31 | ... | 155 | 124 | 439.394 | 15½ | 27.4498 |
| .984375 | 63 | ... | ... | 157½ | 126 | 446.481 | 15¾ | 27.8927 |
| 1.000000 | 64 | 32 | 16 | 160 | 128 | 453.59 | 16 | 28.340 |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# Distinctive Qualities of Alkyd Resins

*by C. S. Ferguson, Varnish Products Engineering Department, General Electric Co.*

DURING the past few years, so many types and modifications of synthetic resins, together with literature describing their uses and possibilities, have been rushed in and placed as conspicuously as possible on and about the desks of the paint, varnish and lacquer chemists with requests that tests be started as soon as the samples reach room temperatures, it is small wonder that these men are among the busiest men in the world, despite the times. But with all the ambition and experience of these men, unless they are fortunate enough to be surrounded by a large and capable staff, it is almost impossible for them to investigate thoroughly the adaptability of these resins to their own particular products. Hence, the chemists welcome suggestions leading to reliable short-cuts in their study of these materials.

Two questions seem to present themselves to most of us interested in the design of finishing materials: (1) Are synthetic resins really more suitable than natural resins in the composition of better protective coatings? And if they are (2) How are we to determine which of these we should employ in the improvement of our own particular products?

The first question has been discussed many times before but with synthetic resins being improved constantly it may be well to review briefly some of the outstanding characteristics in which they differ.

### Stability of Synthetics a Factor

Although many fine products containing such natural resins as kauri, congo, pontianac, etc., have been and still are being produced, they are being replaced rapidly by materials in which synthetic resins are incorporated. The scarcity of high grade and uniform natural resins made it practically a necessity to use inferior grades or pay an extremely high price for the better grades. It was certainly not a very comfortable feeling to be apprehensive of the quality of the next shipment of resin as well as that of the varnish made from it. The question of workability, always important from the varnish maker's point of view, was another factor. One shipment of resin would require much higher temperatures to melt and combine with oil than another shipment making it next to impossible to hold the finished varnish to color control. Unler such conditions, it is easy to realize the difficulty in obtaining uniform physical properties of a finished product. During recent years, we have learned the advantages of working with properly controlled materials. Durability, behavior with pigments, viscosity changes and many other characteristics are dependent upon controlled physical properties.

By way of contrast we will confine ourselves to that type of resin with which we have had most experience, namely, the glycerol-phthalic anhydride or alkyd type.

Synthetic resins of this nature are of definite chemical composition and as such are manufactured under carefully controlled conditions and are held to very rigid control tests. These tests also apply to the raw materials entering the composition of the resins. The manufacturing equipment pipe lines, mixing and storage tanks, etc., are always under careful scrutiny to guard against contamination. With great care used in the selection and control of raw materials, very careful supervision of manufacture and close inspection of the finished product, alkyd resins and their modifications can be produced which will be uniform as to hardness, color and acid number and, if in solution, viscosity and specific gravity can be controlled.

The second question is one with which we are more concerned just at present.

With the great variety of synthetic resins now on the market and others rapidly making their appearance, it would seem at a glance that the chemist should have little difficulty in selecting one or more of these to answer all of his requirements. Yet there is much more to the problem.

### More Offerings Make Problem Bigger

It is similar to being forced to buy a suit of clothes when the complete assortment consists of two suits. Choosing one out of two is no problem but the difficulties in the selection increase in proportion to the number of suits. That is when cost, quality and wear per dollar enter. So it is today when there are available so many synthetic resins with different characteristics and such properties to consider as color, drying time, yellowing, ease of application, flow, durability, gloss retention, adhesion, behavior with pigments, reliability of the manufacturer, water resistance, if for use in air dry or bake materials and, last but not least, the cost.

Laboratory examination of a raw material, regardless of its nature, invariably begins with a rather hasty observation as to odor, color, etc., followed by a perusal of the claims contained in the literature accompanying the sample. In this preliminary investigation of claims or recommendations, it becomes second nature for the eye of the chemist to pause only on special features. In most instances he will review the literature more in detail not only to become better acquainted with the material at hand but because he always welcomes the opportuntiy of expanding his knowledge of raw materials in general. In this more critical review, the chemist is thinking in terms of his own finished products with respect to improvements in quality, ease of handling and cost reduction. Careful consideration is also given to the manufacturer of the raw material and he may well regard this important point. Above all things, when approving a raw material source of supply, he must have confidence that the material supplied him can be obtained in unlimited quantities and of uniform quality. With these preliminary facts noted, it is possible to determine the advisability of mapping out a test program and, in some cases, of deciding just how elaborate this program should be.

Alkyd resins and their modifications have such tremendous possibilities that a thorough investigation of their use in decorative and protective coatings can hardly be neglected. Many years of research and development have perfected these resins to a point where they now rank exceptionally high in the class of better raw materials. Developmental work has not been confined to laboratory experiments. For several years alkyd resins have been used with remarkable success in insulating, sealing and finishing materials. Many hundred thousand pieces of apparatus manufactured within our own organizations have been finished with undercoats and enamels containing these resins and the reports received as to their condition after a number of years have been most gratifying. The older types of finishes for apparatus are being replaced as rapidly as possible and the indications are that many of the building paints and enamels must soon be replaced by those of better quality.

### Wide Variety of Uses

Since these resins have been offered to the paint, varnish and lacquer industry, they have found their way into many different types of finishes. They are contained in the make-up of coatings for the automotive industry, railroad equipment, signs, toys, furniture, etc. They have been found extremely interesting in lithographic work, in house paints as well as in hundreds of other applications.

Laboratories charged with the responsibility of formulating finishes are naturally interested in what they might expect from alkyd resins and how they will affect their finished products.

In the first place, these resins in solution are light in color, making it possible to produce beautiful white enamels and light tints. The fact that they



GLD32436

retain their original color and show much less tendency toward after-yellowing make them all the more desirable in whites.

A high grade enamel or paint should be easy to apply and have good flowing properties. Both of these features can be obtained with most types of these resins, spraying, brushing and dipping being equally satisfactory methods of application. Only in the case of the harder resins is there trouble due to brushing. The leveling or flowing of these materials is remarkable.

In enamels containing certain of the newer synthetic resins, serious skinning in the containers accompanies rapid drying. It is of interest to note that, with the use of alkyd resins, quick drying may be obtained and skinning problems are reduced to a minimum.

The durability of this class of resins is quite well known but, in this connection, one feature may be noted as being of considerable importance, that is, the question of gloss retention. Many materials, although durable from a protective point of view, soon lose their gloss and present an appearance that is not altogether pleasing. Alkyd resins retain their original gloss over long period of time.

This type of resin is very desirable in baking enamels. Because it "cures" when subjected to elevated temperatures, flexibility, adhesion and resistance to water, acids and alkalis are improved.

The newer types of alkyd resins are much more resistant to water and they can be used with the majority of pigments. With improved formulas, availability of better grades of raw materials, improved manufacturing facilities and more careful supervision, the properties of alkyd resins are being improved constantly.

### Guest Speaker

The uses of "tornesit," a new product made by the action of chlorine on rubber, and its possibilities as a protective coating in the paint and varnish industry, were described to a joint meeting on March 7 of Chemical Industry and Montreal Paint and Varnish Club at the Windsor Hotel by R. A. Coolahan, of Wilmington, Del. R. A. Witherspoon, vice-president of Shawinigan Chemicals, Ltd., was in the chair.

•

### *New Pyroxylin Enamel*

A new fast-drying pyroxylin enamel for use as a one-coat finish on bare metal has been developed in laboratories of E. I. du Pont de Nemours & Co., Wilmington, Del. It is known as Pyralux and is available in thirty-six standard colors.

Pyralux was brought out to meet present requirements for low-cost finishing that is attractive and durable. It gives a high gloss finish to any bare metal surface without the use of a primer, according to the company, and has excellent adhesive properties.

"It costs no more to buy the best"

A complete line of Earth Colors; Indian, Turkey and Tuscan Reds, Persian Gulf Oxide, Spanish Oxide, French Ochre, Umber and Sienna. Standard grades, guaranteed uniform in color and quality.

JOSEPH A. McNULTY

"Leech Neal Quality"

114 Liberty Street . New York

INDIAN REDS

*Greater Tinting Strength* *Finer Grinding*
*Uniformity of Color* *Cleaner Tone*

Geo. S. Mepham Corporation
E. ST. LOUIS, ILL.
Largest Manufacturers & Importers of Mineral Pigments in the World
BRANCH OFFICE: 1560 S. Western Ave., Chicago, Ill.

## PIGMENT FOR ALUMINUM PAINT

## AVAILABLE IN PASTE FORM

Pigment for aluminum paint is now available in the form of paste as well as powder, as a result of several years of experimental work in the laboratories of paint manufacturers. Paste offers the advantage of drying to a very smooth finish which does not collect dirt readily and which remains clean and bright, even in industrial atmospheres. Also it is more convenient to mix with the vehicle because it eliminates loose powder flying about during mixing.

In announcing the product, the Aluminum Company of America says: "The paste is prepared quite differently from powder. Instead of stamping the aluminum flakes from sheet and polishing the powder separately, the paste is made direct by reducing the metal to a very fine powder in the presence of mineral spirits. The resulting pigment, when mixed with a suitable vehicle, shows excellent leafing characteristics and produces a film which is not only high in light reflecting but also very durable.

"During the past two and a half years, extensive tests have been made, comparing the relative efficiency of aluminum paste and powder. Results obtained by accelerated weather exposure in test racks indicated that paste is equal in durability to dry aluminum bronze powder. It was found also that the smooth film produced by the use of paste is superior in appearance to the finish obtained with the coarser grades of aluminum bronze powder and compares favorably to that secured by using extra fine lining, which is the finest of ink powders. Hiding power or opacity of paint films made with aluminum paste were found to be superior to that obtained with the coarser grades of aluminum bronze powders, while reflectivity was approximately equal to the lining grades.

"The smooth finish of the film made with aluminum paste in addition to showing less dirt collection, exhibited practically no tendency toward rubbing or washing which is a decided advantage.

"Aluminum paste is supplied in double compartment cans, the vehicle in one portion, the pigment in another, the same as aluminum bronze powder, since there is no appreciable loss in brilliance during storage. Paste is not recommended for use in preparing ready mixed aluminum paints nor should paint made with aluminum paste be allowed to stand mixed for more than 24 hours prior to application.

"Aluminum paste is recommended wherever aluminum bronze powder can be used. Because of its higher light reflectivity and better light diffusing qualities and also because it remains cleaner it is especially recommended for making aluminum paint to be used for interior painting."

## A Big Figure in the Chemical Drier Business



Standing a head above his fellows in most every assemblage of citizens, Carl A. Lechner, representative in the Chicago area for the Advance Solvents and Chemical Corp., is a hard man to lose sight of; particularly as his sales ability and personality are in keeping with his stature. Mr. Lechner has been a Chicagoan since June, 1931, coming here from the Pacific Coast. His principal hobby is work though as might be imagined he is an ace at tennis and not so slow at contract. His home is in Wilmette, a north shore suburb.

◆ ◆ ◆

### BRAZIL TRYS OUT NEW OIL FOR PAINTS AND VARNISH

Experiments in the use of oiticica oil in the preparation of paints and varnishes were carried on during the past several years by Brazilian government agencies and private concerns, according to a report to the chemical division of the Department of Commerce from Trade Commissioner Harvey Sheahan at Rio de Janeiro.

This oil, it is explained, is obtained from the seed of the oiticica tree which grows wild and in great abundance in the state of Para. At the present time there are two factories for the extraction of the oil, the management of which claims that paints prepared with oiticica oil have a greater adhesion, superior resistance to erosion, better surface preservation, better maintenance of white tones and are especially suitable for humid and tropical climatic conditions such as prevail in Brazil.

●

## Sherwin-Williams Expands Kensington Plant

The Sherwin-Williams Co. has under way a $100,000 building program at its Chicago plant, 115th street and Cottage Grove avenue, it was announced Aug. 1. The Austin company is the architect and builder.

A site is being cleared for the erection of a four story utility building, 60x100. Construction already has started on an extension to the present four story can building, where paint is sealed in the cans. This addition will be four stories, 40x100.

●

## O'Brien Varnish Patents New Paint Vehicle

The government patent office has recently issued full process and product patents on a new type of paint material called Thermolyzed Tung Oil to the O'Brien Varnish Co., of South Bend, Ind., whose chemists invented and perfected the product.

It is produced from raw tung, or chinawood oil and constitutes a very much improved paint liquid or vehicle. It has remarkable drying and waterproofing qualities and extraordinary ability to stay in the dried paint film instead of shrinking out quickly, as most oils and vehicles have done previously.

The company has used and tested the new vehicle for over four years, during which time it has demonstrated startling ability to improve the smoothness, washability, and wearing quality of almost any paint, varnish, or enamel. An interesting folder describing it and products made from it can be had by writing to the company.

●

## Believe It or Not, Coffee Used as Paint Pigment

Industrialization of coffee is one o the most active subjects of discussio in coffee countries, that is, the use o coffee in the production of new prod ucts, says a recent report from Guate mala City. The most recent news alon this line is that the bean may be use in the manufacture of a pigment f paints, and although experiments ha only begun, the sponsors of the id claim much for the process.

The practice at present consists carbonizing the coffee bean, thorough grinding it and adding various thing to the powder. An excellent gray pai is obtained by mixing the ground coff with lime, while the addition of o and small quantites of colored pigme produces paint of a quality much sup rior to what is obtained in regular co mercial manufacture, it is claimed. Th is true with respect both to durabil and color.

## De Soto Paint Company in New Owner's Hands

Memphis, Nov. 20.—Three hundred thousand dollars is approximately the amount paid by Sears Roebuck & Co. for the DeSoto Paint and Varnish Co. and its retail branches, according to local gossip. Plans are under way to make additions to De Soto plant to care for




GLYPTAL

The word "GLYPTAL" is a trade name registered by the General Electric Company. Glyptal identifies the glycerol-phthalate type of resins made by General Electric. These resins are used in the manufacture of enamels, paints, lacquers and varnishes.

General Electric offers you an authorized and reliable source of supply for these products.

GENERAL ELECTRIC

GLYPTAL PRODUCTS

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONN.




GL D32438

the increased business. Details for expansion are being worked out in the Chicago offices and will be ready shortly.

*Either a complete new plant* will be built or the present factory will be expanded to house the additional machinery. When complete, the new factory will employ between 150 and 200 persons, four times as many as are now employed by the De Soto company.

Three retail stores, operating under the name of Don Saunders, Inc., located in Memphis, Jackson, Miss., and Little Rock, Ark., included in the purchase, will operate under the name of De Soto Paint and Varnish Co., officials said. Don Saunders, former manager of De Soto Paint and Varnish Co., has accepted a connection with a New York Paint firm.

## F. C. Schmutz Discusses Paint Primers Before St. Louis Club

The regular monthly meeting of the St. Louis Paint & Varnish Production Club was held at the Hotel Claridge Feb. 23.

The speaker of the evening, Fred C. Schmutz, of the New Jersey Zinc Co., Palmerton, Pa., addressed the group on Cryptone MS pigment and answered the question "Are Special Primers the Only Answer?" In his discussion he showed that a special priming formulation was not neccessary provided there was a proper buffing action between the first and subsequent coats of paint. This was very definitely pointed out through the use of slides showing a number of panels that had been weathered and then photographed.

The club memorialized the passing of Frank Faye, one of its charter members. Four new names were added to the club's roster as follows: Messrs. G. Wagner, E. Clark, C. Cox, all of the Campbell Paint & Varnish Co., and W. Groves, of the Con-Ferro Paint & Varnish Co.

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## New Liquid Resin Developed by Hercules Company

Wilmington, Del., April 8.—Development of a new liquid resin to be known under the name of Abalyn is announced by the naval stores department of the Hercules Powder Company.

The new product is a resinous plasticizer for nitrocellulose lacquers and other products. The properties of Abalyn indicate that it will find a wide application in the manufacture of such products as clear interior lacquers for metal and wood, alkali-proof lacquers, leather lacquers, coatings for fabric and paper, non-drying inks, rubber cements, adhesives, waterproofing compositions, transparent paper and similar products.

The new liquid resin, which was developed at the Hercules Research & Experimental Laboratories, has already been given many practical field tests and will be marketed from the Wilmington office of the company.

Abalyn is a pale yellow viscous resin that has a solvent action on nitrocellulose in the presence of alcohols. It has in addition, according to reports from the Hercules naval stores department, the following properties:

It is not appreciably affected by alkalies or weak acids and does not hydrolyze with boiling water. It has a faint, mild and ester-like odor. It is compatible with all the normal non-volatile and volatile ingredients of nitrocellulose lacquers. It is insoluble in water and is an excellent waterproofing and impregnating agent.

It is a substantially non-drying product although it oxidizes very slowly to a pale yellow resin. It has a solvent action on practically all natural and synthetic resins, rubber, and drying oils. It is not corrosive and does not liver with basic pigments. It serves as both resin and plasticizer and may be used to impart gloss, adhesion and body in nitrocellulose lacquers, that normally contain no resins, without loss of flexibility.


**An Important New Product of the Spencer Kellogg Research Laboratories**

•

# Enamel Grinding Oil

● **Kellogg's Enamel Grinding Oil represents a fundamentally *New Idea*. It is not a mechanical mixture of polymerized and Raw or Refined Oils. Neither is it a blown oil. But by a special processing, affecting the whole oil, unusual wetting and flowing qualities are obtained. It produces a paint which yields an enamel-like surface. Although drying to a wonderful film, it does not skin either by itself or with pigments. Its outstanding properties, *high purity* and *reasonable premium*, make it indispensable for high quality paints. As a letting-down oil it has no equal.**

**Spencer Kellogg & Sons recommend Enamel Grinding Oil for general paints.**

***The Test will Tell!***

**SPENCER KELLOGG & SONS SALES CORPORATION**

**BUFFALO, N. Y.**


## General Paint Co. Officers and Directors Re-elected

The board of directors of the General Paint Corp., San Francisco, was re-elected at the annual meeting of the stockholders at the company's headquarters on Feb. 16.

At its meeting following the board of directors renamed the present officers and named Deming Bronson and W. D. Tuebner, divisional managers, as vice presidents.

The officers are J. C. Mullins, president and treasurer; O. S. Orrick, vice-president and secretary; D. W. Boylan, S. C. Rasmussen, H. L. Jones, D. M. Boylan, L. F. Perrine, R. D. Sullivan, W. D. Tuebner and Deming Bronson, vice-presidents; D. M. Beal, assistant secretary and assistant treasurer. Directors are D. W. Boylan, F. M. Brininstool, John Burbaw, C. H. Jones, J. C. Mullins, O. S. Orrick, J. P. Rasmussen, S. C. Rasmussen and J. H. Schinneller.



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# MARKET PRICES CURRENT

November 16, 1936

Quotations in this department are ruling market prices on paint and varnish raw materials, chemicals, etc., in large quantities and original packages obtained from sources considered by the publisher to be trustworthy and reliable. Effort is made to keep this department correct and up-to-date and the editors will be pleased to secure supplementary information on market prices on any commodity used by the paint, varnish, lacquer and related trades. The trade is requested to call attention to any inaccuracies that may appear.

## ALCOHOL

| | | |
|---|---|---|
| Special Denatured No. 1, 190 proof, f.o.b. Chicago, tanks | | $0.25 |
| drum carlots | | .31 |
| 188 Proof C. D. No. 12, 13, 14, f.o.b. Chicago, drums, carlots | | .35 |
| Solvent Alcohol, f.o.b. Chicago drums, carloads | | .32 |
| Methanol (wood alcohol) 95% drums, l.c.l. | gal. | .385 |
| 97% drums, l.c.l. | gal. | .395 |
| Pure Methanol drums, l.c.l. | gal. | .405 |
| Methyl Acetone drums, l.c.l. | gal. | .36 |

drums are included in above prices on alcohol of all grades.

## DRIERS

Per Lb. Chicago

| | | | |
|---|---|---|---|
| **Alumina:** | | | |
| oleate, pptd. | lb. | $0.17½@ | .20 |
| palmitate, pptd. | lb. | .22 @ | .23 |
| resinate, pptd. | lb. | .15 @ | ..... |
| stearate, pptd. | lb. | .20 @ | .21 |
| **Calcium:** | | | |
| calcium Lin. Plastic | lb. | .07½@ | .09 |
| linoleate | lb. | .28 @ | .30 |
| resinate, pptd. | lb. | .13 @ | .14 |
| stearate, pptd. | lb. | .20 @ | .21 |
| **Cobalt:** | | | |
| acetate | lb. | .65 @ | .67 |
| carbonate | lb. | 1.58 @ | 1.68 |
| hydrate | lb. | 1.70 @ | 1.80 |
| linoleate, solid | lb. | .35 @ | .37 |
| paste drier | lb. | .32 @ | .34 |
| resinate, fused | lb. | .14 @ | .19 |
| resinate, pptd. | lb. | .33 @ | .37 |
| **Lead:** | | | |
| acetate | lb. | .11 @ | .12½ |
| linoleate, solid | lb. | .19 @ | .23 |
| resinate, pptd. | lb. | .15½@ | .17½ |
| resinate, fused | lb. | .09 @ | .12 |
| **Manganese:** | | | |
| borate, c. p. | lb. | .19 @ | .20 |
| borate, technical | lb. | .16 @ | .18 |
| oxide, 85% | lb. | .04¾@ | .05¾ |
| resinate, fused | lb. | .08½@ | .09½ |
| resinate, pptd. | lb. | .12 @ | .14 |
| sulphate (anhydrous) | lb. | .09 @ | .10 |
| **Zinc:** | | | |
| carbonate | lb. | .14 @ | .16 |
| resinate (fused) | lb. | .08½@ | .10½ |
| sterate, pptd. | lb. | .22 @ | .23 |
| sulphate (crystals) | lb. | .04 @ | .05¾ |

## DRY COLORS

### Black

| | | | |
|---|---|---|---|
| Bone, powdered | lb. | .07 @ | .10 |
| Black oxide of iron | lb. | .04½@ | .15 |
| Carbon gas, standard, rubber, ink and paint qualities, delivered car lots, | | | |
| Zone A, bags | lb. | .0295@ | ..... |
| Zone B, bags | lb. | .0310@ | ..... |
| Zone C, bags | lb. | .0319@ | .0385 |
| Zone D, bags | lb. | .0325@ | ..... |
| Zone E, bags | lb. | .0341@ | ..... |
| Zone F, bags | lb. | .0375@ | ..... |
| ex-warehouse, l.c.l., bags, | lb. | .0575@ | ..... |
| l.c.l. cartons | lb. | .0625@ | ..... |
| l.c.l. cases | lb. | .07 @ | ..... |
| Charcoal, willow, pwd. | lb. | .06 @ | .07 |
| Charcoal, com. in bbl. | lb. | .05 @ | ..... |
| Drop | lb. | .06 @ | .17 |
| Ivory | lb. | .30 @ | .35 |
| Lampblack | lb. | .07 @ | .18 |
| Mineral blacks | ton | 28.00 @ | 32.00 |

### Blues

| | | | |
|---|---|---|---|
| Blue, C.F., on contract | lb. | .26 @ | .27 |
| Bronze | lb. | .26 @ | .27 |
| Celestial | lb. | .10 @ | .15 |
| Chinese | lb. | .26 @ | .27 |
| Milori | lb. | .26 @ | .27 |
| Prussian | lb. | .26 @ | .27 |
| Soluble, 250-lb. lots | lb. | .24 @ | .27 |
| Ultramarine, in bbls. | lb. | .06 @ | .30 |

### Browns

| | | | |
|---|---|---|---|
| Sienna, Italian, burnt and powdered, ton lots, in barrels | lb. | .04½@ | .11 |
| raw, powdered, ton, lots in barrels | lb. | .04½@ | .11 |
| American burnt and powdered, ton lots, in barrels | lb. | .03 @ | .04 |
| raw powdered, ton lots, in barrels | lb. | .02¾@ | .03½ |
| Spanish browns: high grade | ton | 60.00 @ | ..... |
| low grade | ton | 45.00 @ | ..... |
| Umber, Turkey, burnt, powdered, in ton lots | lb. | .04 @ | .06 |
| American | lb. | .02¾@ | .03½ |
| Vandyke brown | lb. | .04½@ | .05 |
| Vandyke brown, domestic | lb. | .03 @ | .03½ |
| Brown, metallic | ton | 37.00 @ | 45.00 |
| Precip. Brown Iron Oxide | lb. | .11¾@ | ..... |

### Greens

| | | | |
|---|---|---|---|
| Chrome, c. p. light | lb. | .21 @ | .23 |
| medium | lb. | .23 @ | .25 |
| dark | lb. | .26 @ | .31 |
| extra dark | lb. | .28½@ | ..... |
| grinders' | lb. | .06½@ | ..... |
| jobbers' | lb. | .06 @ | ..... |
| limeproof | lb. | .22 @ | .23 |
| Chrome Oxide, domestic | lb. | .22 @ | .25 |
| imported | lb. | .26 @ | .27 |
| Paris Green, ton lots | lb. | .25½@ | .27½ |
| Verdigris, French | lb. | .22 @ | .23 |

### Reds

| | | | |
|---|---|---|---|
| Alizarine, lake, concentrated | lb. | 1.50 @ | 2.10 |
| Carmine, No. 40, bulk, 100-lb. lots | lb. | 4.00 @ | ..... |
| Crocus martis | lb. | .03 @ | .05 |
| Eosin | lb | .65 @ | .75 |
| Indian red, English | lb. | .09¾@ | .10¼ |
| American pure | lb. | .08¾@ | .09 |
| American common | lb. | .04 @ | .08 |
| Oxide, red copperas, casks, | lb. | .04 @ | .12 |
| domestic, natural in casks, | lb. | .02 @ | .04½ |
| Spanish, light, dark | lb. | .03 @ | .03¼ |
| Para red, toners, concentrated, bbl. lots | lb. | .75 @ | .80 |
| commercial | lb. | .10 @ | .13 |
| Purple lake | lb. | .60 @ | 2.00 |
| Rose Pink | lb. | .17 @ | .30 |
| lake | lb. | .20 @ | .30 |
| Toluidine toner | lb. | 1.35 @ | 1.40 |
| Lithol toner | lb. | .75 @ | .80 |
| Tuscan red | lb. | .15 @ | .40 |
| Venetian red | lb. | .01½@ | .06 |
| Vermilion quicksilver, English | lb. | 1.60 @ | 1.61 |
| American | lb. | .15 @ | ..... |

### Yellows

| | | | |
|---|---|---|---|
| Chrome, chem. pure | lb. | .14½@ | .15½ |
| Iron oxide, yellow | lb. | .04 @ | .10 |
| Ocher, French | lb. | .02¾@ | .03 |
| Ocher, domestic, strong | lb. | .01¾@ | .02½ |
| medium | lb. | .01½@ | .02 |
| golden | lb. | .03¾@ | .07½ |
| Hydrate iron oxide | lb. | .07¾@ | .07¼ |

## GENERAL CHEMICALS

| | | | |
|---|---|---|---|
| **Acids:** | | | |
| Acetic, 70%, bbls. | cwt. | 6.85 @ | 7.10 |
| Muriatic (hydrochloric) 18° Carloads, wks., cwt. | | 1.75 @ | ..... |
| 20° Carloads, wks., cwt. | | 2.00 @ | ..... |
| Nitric, 38°, wks., cwt. | | 5.75 @ | ..... |
| Sulphuric, 66°, wks., cwt. | | 1.75 @ | ..... |
| Tartaric acid | lb. | .25 @ | ..... |
| Acetate of lime (N. Y.) 100-lb. bags | | 2.00 @ | ..... |
| Acetate of lead, brown | lb. | .09½@ | .10½ |
| Alumina sulphate, commercial | cwt. | 1.35 @ | ..... |
| Iron, free | cwt. | 2.00 @ | ..... |
| Ammonia, Aqua, 26 degrees | lb. | .02½@ | .05¼ |
| Copperas, crude | ton | 13.00 @ | 17.00 |
| Potassium bichromate | lb. | .08 @ | .10 |
| Sodium acetate | lb. | .05 @ | .13 |
| ash light, bbls. | cwt. | 1.22½@ | ..... |
| bichromate | lb. | .06½@ | ..... |
| caustic soda, 76% solid, cwt. | | 2.80 @ | 4.40 |
| chlorate | lb. | .05¾@ | .07½ |
| nitrate | lb. | .02½@ | .03 |
| phosphate | lb. | .03½@ | .03¾ |
| prussiate | lb. | .11½@ | .13 |

## COAL TAR PRODUCTS (Crude)

| | | | |
|---|---|---|---|
| Anthracene, 20-25% | lb. | .03½@ | .04 |
| Benzol, 90% | gal. | .18 @ | .22 |
| Naphthalene flakes | lb. | .06 @ | ..... |
| Toluol pure w. white | gal. | .30 @ | .35 |

### Coal Tar Intermediates

| | | | |
|---|---|---|---|
| Acid, anthranilic, tech. | lb. | .80 @ | 1.00 |
| Cleve's | lb. | .52 @ | .55 |
| Alpha naphthalamine | lb. | .33 @ | .37 |
| Alpha naphthol refined | lb. | .60 @ | .66 |
| Aniline Oil, drums | lb. | .16½@ | ..... |
| Beta naphthalamine | lb. | .58 @ | .60 |
| Meta nitro para toluidine | lb. | 1.50 @ | 1.55 |
| Para nitro-analine | lb. | .51 @ | ..... |
| R. Salt | lb. | .52 @ | .57 |
| Schaeffer's salt | lb. | .50 @ | ..... |
| Toluidin | lb. | .27 @ | .28 |

## Glues

| | | | |
|---|---|---|---|
| Bone, comomn grades, car lots, bags | lb. | .11 @ | ..... |
| better grades, car lots, bags | lb. | .13½@ | ..... |
| Hide, high-grade, car lots, bags | lb. | .18 @ | .26 |
| medium grade, car lots, bags | lb. | .12 @ | .18 |
| low grade, car lots, bags | lb. | .11 @ | .16 |
| Imported, medal, bags | lb. | .12 @ | .16 |

## LEAD PIGMENTS

| | | | |
|---|---|---|---|
| Dry Lead (basic carbonate). 25-50 lbs. | lb. | .11¼@ | ..... |
| 100 lbs. | lb. | .11 @ | ..... |
| Barrels and halves | lb. | .07 @ | ..... |
| Basic sulphate (sublimed) blue in oil. In kegs, 12½ lbs. | lb. | .11½@ | ..... |
| In kegs, 25-50 lbs. | lb. | .11¼@ | ..... |
| In kegs, 100 lbs. | lb. | .11 @ | ..... |
| White and blue. (Sublimed) Lead. In barrels (dry) | lb. | .06¼@ | ..... |
| Red Lead (dry) in kegs, 12½ lbs. | lb. | .11½@ | ..... |
| In kegs, 25-50 lbs. | lb. | .11¼@ | ..... |
| In kegs, 100 lbs. | lb. | .11 @ | ..... |
| Barrels | lb. | .08½@ | ..... |
| Litharge, in kegs. 25-50 lbs. | lb. | .11 @ | ..... |
| 100 lbs. | lb. | .11 @ | ..... |
| Barrels | lb. | .07½@ | ..... |
| Orange mineral | lb. | .11 @ | ..... |
| White Lead in Oil: In kegs, 12½ lbs. | lb. | .11½@ | ..... |
| 25-50 lbs. | lb. | .11¼@ | ..... |
| 100 to 500 lbs. | lb. | .11 @ | ..... |
| Red Lead in Oil: In kegs, 12½ lbs. | lb. | .12 @ | ..... |
| 25-50 lbs. | lb. | .11¾@ | ..... |
| 100 lbs. | lb. | .11½@ | ..... |

Litharge, Red Lead and Orange Mineral in five ton shipments one-half cent less.

Basic carbonate and basic sulphate lead dry in barrels, carloads, ¼c per pound under above quotations.

Quantity discounts on white and red lead in oil and on dry white lead, dry red lead, and litharge in kegs only.

500 lbs. lots—10%.

1,000 lb. and more—Terms 1 per cent for cash in 10 days.

## MISCELLANEOUS PAINT PIGMENTS

| | | | |
|---|---|---|---|
| Barytes, domestic: Prime, white, car lots, mills, St. Louis: Barrels | ton | 23.65 @ | ..... |



GLD32440

| | | | |
|---|---|---|---|
| Bags | ton | 22.00 @ | ..... |
| Paper Bags | | 22.50 @ | ..... |
| Bags returnable at 10c each | | | |
| Off colors, bulk | ton | 12.00 | @18.00 |
| Prime white, imported, f.o.b. New York | ton | 27.00 | @34.00 |
| Blanc Fixe, spot l.c. | lb. | .03½ @ | .04½ |
| Bronze Powder, per 50-lb. drum, gold or aluminum | lb. | .65 @ | 1.30 |
| Casein | lb. | .16½ @ | .19½ |
| China Clay, imported lump | ton | 15.00 | @25.00 |
| Domestic | ton | 8.00 @ | 9.00 |
| l.c.l., Chicago | ton | 20.00 | @25.00 |
| Cobalt Oxide | lb. | 2.10 @ | 2.20 |
| Feldspar | ton | 15.00 | @21.00 |
| Fuller's Earth, pwd., car lots | ton | 15.00 | @26.00 |
| Graphite Flake, bbls. | lb. | .06 @ | .15 |
| Lead Titanate: | | | |
| carlots | lb. | .11 @ | ..... |
| 5 ton lots (single delivery) | | .11¼ @ | ..... |
| Less than 5 ton lots | | .11½ @ | ..... |
| Lithopone normal strength, c.l. | bags, Nom. | .04½ @ | ..... |
| titanated (high strength) c.l. | Nom. | .05½ @ | ..... |
| Manganese oxide, car lots pulv., bbls., 75@80% | lb. | .02½ @ | .03 |
| pulv., bbls., 80@85% | lb. | .03½ @ | ..... |
| pulv., bbls., 85@88% | lb. | .04 @ | .04½ |
| Marble Dust | ton | 12.00 | @14.00 |
| Naphtha (V. M. & P.) drums or tanks | gal. | .142 @ | ..... |
| 150 gal. (or more) | gal. | .122 @ | ..... |
| Plaster Paris | ton | 28.00 | @29.00 |
| Pumice Stone, lump, casks | lb. | .06 @ | .07 |
| powdered, pure, bbls. | lb. | .03½ @ | .04 |
| Putty: | | | |
| commercial, tubs | cwt. | 2.25 @ | 2.15 |
| 100 steel kegs | | 4.00 @ | 4.50 |
| pure barrels | cwt. | 3.80 @ | ..... |
| half barrels | cwt. | 3.70 @ | ..... |
| 100 steel kegs | | 4.25 @ | ..... |
| Rotten Stone, original casks, f.o.b. Chicago | lb. | .05½ @ | ..... |
| Imported | lb. | .09½ @ | ..... |
| Silica: crude | ton | 8.00 | @11.00 |
| floated | ton | 16.00 | @22.00 |
| refined | ton | 30.00 | @35.00 |
| Talc, domestic | ton | 16.00 | @18.00 |
| French | ton | 24.50 | @26.50 |
| fibrous, c. l. bags | ton | 12.00 | @20.00 |
| l. c. l. bags | ton | 25.00 | @ ..... |
| Pure Titanium Oxide: bbls. | lb. | .17¼ @ | ..... |
| Titanium Dioxide: carlots, bags | lb. | .15 @ | ..... |
| l. c. l. to 1000 lbs., bags. | lb. | .15½ @ | ..... |
| Titanium barium pigment: carlots, bags | lb. | .05½ @ | ..... |
| carlots, bbls. | lb. | .05½ @ | ..... |
| l. c. l. bags | lb. | .05½ @ | ..... |
| Titanium calcium pigment: carlots, bags | lb. | .05½ @ | ..... |
| carlots, bbls. | lb. | .05½ @ | ..... |
| l. c. l. bags | lb. | .05½ @ | ..... |
| l. c. l. bbls. | lb. | .06½ @ | ..... |
| Whiting, chalk, commercial, bags, c. l., works | ton | 12.00 @ | ..... |
| barrels, c. l., works | ton | 15.00 | @16.50 |
| gilders, bolted, bags | ton | 15.00 @ | ..... |
| barrels, c. l. | ton | 18.00 | @19.50 |

## OILS

### Fish

| | | | |
|---|---|---|---|
| Menhaden, light, pressed: tanks, nominal | | .056 @ | ..... |
| drums, carloads nominal | | .064 @ | ..... |

### Vegetable

| | | | |
|---|---|---|---|
| China wood (East Coast): tanks | | .14 @ | ..... |
| l. c. l. | | .16½ @ | ..... |
| Linseed raw f. o. b. Chicago: Tanks | | .08 @ | ..... |
| Carlots in cooperage on Tracks | | .088 @ | ..... |
| Warehouse | | .09 @ | ..... |
| Tanks, 7½ lbs. | | .60 @ | ..... |
| Cooperage, 7½ lbs. | gal. | .64½ @ | ..... |
| Warehouse | gal. | .67½ @ | ..... |
| Oiticica oil: Drums | lb. | .09¾ @ | ..... |
| Perilla: Tanks, E. Coast | | .094 @ | ..... |
| Drums | | .106 @ | ..... |
| Soybean: Tanks Chicago | | .05½ @ | ..... |
| l. c. l. Chicago | | .067 @ | ..... |

## SHELLAC

### New York Spot

| | | | |
|---|---|---|---|
| A. C. Garnet | Nom. lb. | .14 @ | .15 |
| T. N. | Nom. lb. | .13½ @ | .14½ |
| Superfine Orange | Nom. lb. | .14½ @ | .15½ |
| Bone Dry Bleached | Nom. lb. | .19 @ | .24 |
| Diamond I | Nom. lb. | .21½ @ | .22½ |
| V. S. O. | Nom. lb. | .21½ @ | .22½ |
| D. C. | Nom. lb. | .21½ @ | .22½ |

## VARNISH GUMS

The classifications shown here are those generally accepted by foreign exporters, domestic importers and dealers, and the quotations are current New York spot market prices for varnish gums in fair quantities. For Chicago prices add 1c per pound.

| | | | |
|---|---|---|---|
| Copal, Congo, Amber, pale, bags | lb. | .15 @ | .19 |
| dark bags | lb. | .09¾ @ | .10½ |
| Sorts, bold, bags | lb. | .07 @ | .07½ |
| kettle, size, bags | lb. | .07 @ | .09½ |
| chips, bags | lb. | .06 @ | .07 |
| dust, bags | lb. | .04½ @ | .05 |
| Ivory opaque, bold, bags | lb. | .27½ @ | .28 |
| kettle-size bags | lb. | .16 @ | .18 |
| kettle-size No. 2, bags | lb. | .13 @ | .14 |
| sorts, bags | lb. | .06 @ | .09 |
| Pale, bags | lb. | .22 @ | .28 |
| selected, hard | lb. | .22 @ | .24 |
| Picture, bags | lb. | .47 @ | .48 |
| East India, Batu, scraped, bags | lb. | .05½ @ | .06½ |
| unscraped, bags | lb. | .04½ @ | .05½ |
| nubs and chips, bags. | lb. | .04½ @ | .05½ |
| Black, bold scraped, bags | lb. | .06 @ | .06½ |
| unscraped, bags | lb. | .05 @ | .05½ |
| nubs and chips | lb. | .05 @ | .05½ |
| Pale, bold, Singapore, bags | lb. | .16 @ | .17 |
| Macassar, bags | lb. | .13 @ | .13½ |
| nubs, Singapore, bags | lb. | .11 @ | .13 |
| Chips, bags | lb. | .06 @ | .07 |
| Manila, Loba A, baskets | lb. | .11½ @ | .11⅞ |
| Loba B, baskets | lb. | .11¼ @ | .11½ |
| Loba C, baskets | lb. | .10¾ @ | .11¼ |
| Loba D, baskets | lb. | .09½ @ | .10 |
| Loba DU, baskets | lb. | .08½ @ | .09 |
| CBB, baskets | lb. | .09½ @ | .10 |
| CNE, baskets | lb. | .07 @ | .07½ |
| DBB, baskets | lb. | .09 @ | .09⅞ |
| DK, baskets | lb. | .06½ @ | .07 |
| Dust, baskets | lb. | .04½ @ | .05 |
| MA, baskets | lb. | .06¾ @ | .07½ |
| MB, baskets | lb. | .06¼ @ | .07 |
| WS, baskets | lb. | .09¼ @ | .09¾ |
| Pontianak, genuine, bold, bags | lb. | .18¼ @ | .19 |
| Chips, bags | lb. | .07¼ @ | .08 |
| split, bags | lb. | .16¼ @ | .17 |
| Nubs, bags | lb. | .12¼ @ | .13 |
| Mixed, bold, bags | lb. | .16 @ | .17 |
| Damar, Batavia, cases | lb. | .13½ @ | .13¾ |
| A/D, mixed, cases | lb. | .15¼ @ | .15⅞ |
| E, cases | lb. | .08½ @ | .09 |
| Dust | lb. | .06 @ | .06½ |
| Singapore, No. 1, cases. | lb. | .16½ @ | .17 |
| No. 2 cases | lb. | .10½ @ | .11 |
| No. 3 cases | lb. | .05¾ @ | .06¼ |
| Chips, cases | lb. | .08 @ | .08½ |
| Dust, cases | lb. | .05¾ @ | .06¼ |
| Elemi, No. 1, cans | lb. | .09¾ @ | .10¾ |
| No. 2 cans | lb. | .10¾ @ | .11¼ |
| Kauri, Brown, scraped, cases | lb. | .30 @ | .40 |
| No. 1, cases | lb. | .20 @ | .25 |
| No. 2, cases | lb. | .12½ @ | .16 |
| No. 3, cases | lb. | .11½ @ | .13 |
| Loads | gal. | .42½ @ | ..... |
| Chips, cases | lb. | .06½ @ | .08½ |
| Dust, cases | lb. | .04 @ | .06 |
| White No. 1, pale, cases. | lb. | .52 @ | .56 |
| No. 1, ord'y, cases | lb. | .38 @ | .42 |
| No. 2, ord'y, cases | lb. | .20 @ | .25 |
| No. 3, ord'y, cases | lb. | .13 @ | .15 |
| Chips, cases | lb. | .11 @ | .14 |
| Dust, cases | lb. | .06 @ | .12 |

## ZINC OXIDES

Current quotations on zinc oxides are as follows, American Process, bags carlots:

| | | | |
|---|---|---|---|
| Lead free | cwt. | 6.25 @ | ..... |
| Leaded 5% | cwt. | 6.125 @ | ..... |
| 35% | cwt. | 5.80 @ | ..... |
| 50% | cwt. | 5.92 @ | ..... |

In barrels carlots ¼c per pound higher.

| | | | |
|---|---|---|---|
| French, Process, bbls., carlots: White seal | lb. | .08½ @ | .08¾ |
| Green seal | lb. | .08 @ | .08¼ |
| Red Seal | lb. | .07½ @ | .07¾ |
| U.S.P. grade | lb. | .08 @ | ..... |
| In bags, carlots: Green seal | lb. | .09¼ @ | ..... |
| Red Seal | lb. | .08¾ @ | ..... |

## LACQUER MATERIALS

| | | | |
|---|---|---|---|
| Nitrocellulose— Ester soluble, ¼", ½", 5-6", 15-20" and higher | | .26 @ | ..... |
| Alcohol soluble, ½" and 40" | | .35 @ | ..... |
| Bronzing, 20", 40" and 70" | | .29 @ | ..... |
| Lacquer, 20-30" and 60-80" | | .29 @ | ..... |
| Ethyl Cellulose (f.o.b. Wilmington)— 1 to 99 lbs. | lb. | .55 @ | ..... |
| 100 to 499 lbs. | lb. | .50 @ | ..... |
| 500 lbs. and over | lb. | .48 @ | ..... |
| Cellulose Acetate (f.o.b. Parlin, N. J.)— Standard types, flake, any quantities | lb. | .40 @ | ..... |
| Cellulose Acetobutyrate (f.o.b. Parlin, N. J.)— 1 lb. to 99 lbs. | lb. | .55 @ | ..... |
| 100 lbs. to 500 lbs. | lb. | .53 @ | ..... |
| 500 lbs. and over | lb. | .52 @ | ..... |

Nitrocellulose prices are quoted on the basis of dry weight. Denatured alcohol used in manufacture is charged for extra. Barrels to be paid for extra but are returnable

### Solvents

| | | | |
|---|---|---|---|
| Acetone, C.P.; drs., l.c.l. | lb. | .0625 @ | ..... |
| Acetone oil: light bbls. | gal. | 1.15 @ | 1.50 |
| Alcohol, denatured: spec. No. 1 tanks, wks. | | | |
| f. o. b. Chgo. | gal. | .26 @ | ..... |
| 19 drums, Chgo. | | .33 @ | ..... |
| 1-18 drums, Chgo. | | .36 @ | ..... |
| drums, c. l., Chgo. | gal. | .31 @ | ..... |
| C. D. No. 12, 13, 14, drums, carloads, f.o.b. Chicago | | .35 @ | ..... |
| Alcohol Amyl (from pentane) tanks, delivered | lb. | .106 @ | ..... |
| c. l. delivered | lb. | .116 @ | ..... |
| l. c. l. drums, del. | lb. | .126 @ | ..... |
| Amyl Acetate (from pentane) l. c. l. drums, delivered | lb. | .12 @ | .135 |
| car lots, drums, del. | lb. | .11 @ | ..... |
| tank cars, del. | lb. | .10 @ | ..... |
| Amyl Acetate Technical from Fusel Oil: tanks. | lb. | .096 @ | ..... |
| carlots, drums | lb. | .105 @ | ..... |
| less carlots, drums | lb. | .11 @ | ..... |
| Amyl Propionate | | .13 @ | .17 |
| Benzol, pure: tanks, wks. | gal. | .18 @ | ..... |
| drums, works | gal. | .22 @ | ..... |
| Butyl acetate, normal: tanks | lb. | .085 @ | ..... |
| drums | lb. | .095 @ | ..... |
| drums, l. c. l. | lb. | .10 @ | ..... |
| Butanol: normal drs., l.c.l., del. | lb. | .10 @ | ..... |
| normal drs., c.l., del. | lb. | .095 @ | ..... |
| tanks | lb. | .085 @ | ..... |
| Butyl prop. pri., l.c.l. | lb. | .17 @ | ..... |
| secondary, c. l., drums. | lb. | .11 @ | ..... |
| Diamyl Phthalate, drs. | lb. | .21 @ | ..... |
| Dibutyl Phthalate, drs. | lb. | .19 @ | .195 |
| Diethyl carbonate, drs. | lb. | .25 @ | ..... |
| Dibutylamine, l.c.l., drs., f.o.b. Wyandotte, Mich. | lb. | .55 @ | ..... |
| Diethylphthalate | lb. | .195 @ | ..... |
| Ethyl acetate, 85-88% tank cars | lb. | .065 @ | ..... |
| drum, carlots | lb. | .065 @ | ..... |
| drums, l. c. l. | | .07 @ | ..... |
| Ethyl Acetate, 99%, tanks. | lb. | .0625 @ | ..... |
| car lots, drums | lb. | .0725 @ | ..... |
| l. c. l. drums | lb. | .0775 @ | ..... |
| Ethyl Lactate | lb. | .335 @ | ..... |
| Ethyl oxy butyrate | lb. | .30½ @ | ..... |
| Furfural | lb. | .17½ @ | .19½ |
| Fusel Oil, ref., std., l.c.l. | lb. | .14 @ | .155 |
| Isopropyl, acet. l.c.l. | gal. | .07 @ | ..... |
| Methanol: 95%, drums, carloads. | gal. | .36 @ | ..... |
| 97%, drums, carloads. | gal. | .37 @ | ..... |
| Methyl acetone drs. l.c.l. | gal. | .36 @ | ..... |
| Monobutylamine, l.c.l., drs., f.o.b. Wyandotte, Mich. | lb. | .65 @ | ..... |
| Solvent Alcohol: Tanks. | gal. | .26 @ | ..... |
| Carloads, drums | | .32 @ | ..... |
| 19 drum lots | | .34 @ | ..... |
| 1-18 drum lots | | .37 @ | ..... |
| Tributylamine, l.c.l., drs., f.o.b. Wyandotte, Mich. | lb. | .70 @ | ..... |

# Sherwin-Williams Co. President Visions Promising Outlook

• While complete figures for the calendar year 1939 are not available, the first eight months of the year compared with the same period in 1938 showed a slightly better than 10 per cent increase, says President George A. Martin, of Sherwin-Williams Co., in his news on the business outlook. Since Sept. 1, information received from all sources is that the manufacturers in the paint industry have been busy and it is almost certain that the ratio of increase since Sept. 1 will be considerably greater than for the earlier part of the year. "As a matter of fact, in our own case," reports Mr. Martin, "business since Sept. 1 has been somewhat in excess of normal conditions. Nevertheless, it is our belief that we may look for a good volume of sales for some time to come.

"Having just completed a swing around the West and Southwest I have heard no complaints about business in paint. . . .

"The year 1939 was marked by further advancement and progress in chemical and technical research and developments in the paint industry. We are becoming more a chemical industry every day and the discoveries of our hundreds of young chemists in the raw materials, as well as the technical processing and improvements in the older products, and in new developments, are truly astounding. . . .

"With the coming of the second European War, as well as the trouble in the Orient for some time preceding that, it was feared that the paint industry would be cut off from some of its important raw material sources. However, this worry has subsided and our industry today is practically self-contained as to raw material supplies. . . .

"The war situation brought some price advances in raw materials and some of the trade scurried to get under cover on contracts. While this condition has been relieved somewhat in recent weeks, it is apparent that replacement costs on a great many of our raw materials will be quite a bit higher, due to crop shortages in Argentine flax and other similar developments which have tended to firm up prices. . . .

"The industrial uses of paints, varnishes and lacquers have gone forward at an increased pace—probably the transportation industries leading the procession by some margin, although the entire field of products finishing has seen rapid advances and a high degree of specialization.

"The paint industry, at its convention in San Francisco in October, sounded its 1940 keynote for an aggressive campaign based on a two-fold program—Styling with Color and Budget Payment Plan.

"With a big undeveloped, undersold market ahead of us, as far as our products are concerned, we believe that our industry will measure up to its opportunities and not only hold its own but go forward to a good showing in 1940, working together for 'A Better Painted America.'

"In conclusion, with due respect to the possible effect of the war, I believe it has been many years since business in general and trade looked so promising as it does today and so good for the future, provided, of course, that we do not meet with another eruption brought about by political conditions. The steadiness of the markets on stocks and securities, which seem fairly free from the speculation that usually follows improvement in business, suggests the thought that our people have their feet on the ground and have not forgotten the experience of the recent past."


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*Unretouched photograph of sectional fracture of Lehmann roll showing character and uniform depth of chill.*

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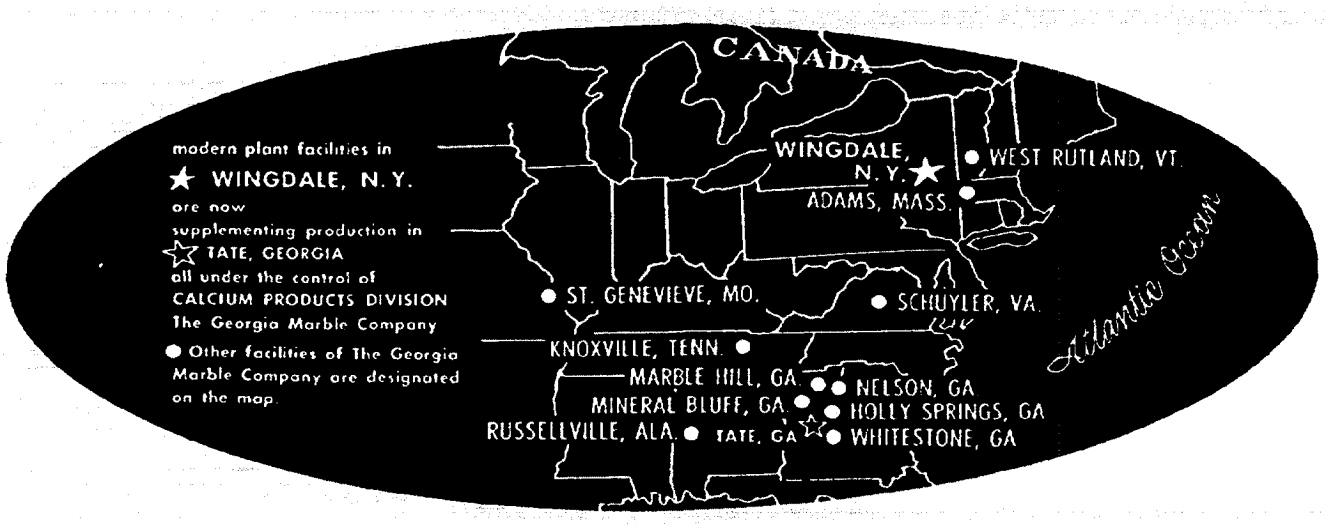


The world's largest producer of crystalline marble and marble products has added production facilities at Wingdale, New York. This makes a total of six operating plants for the Calcium Products Division to provide you the finest service in the several grades of extender pigments it produces.

In addition to our standard wet and dry ground grades of calcium carbonate, an entirely new type of product is being produced at this new plant. It is called "Wingdale White" and is produced by tube mill grinding plus mechanical air separation and classification.

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*CHECK ITEM 67*

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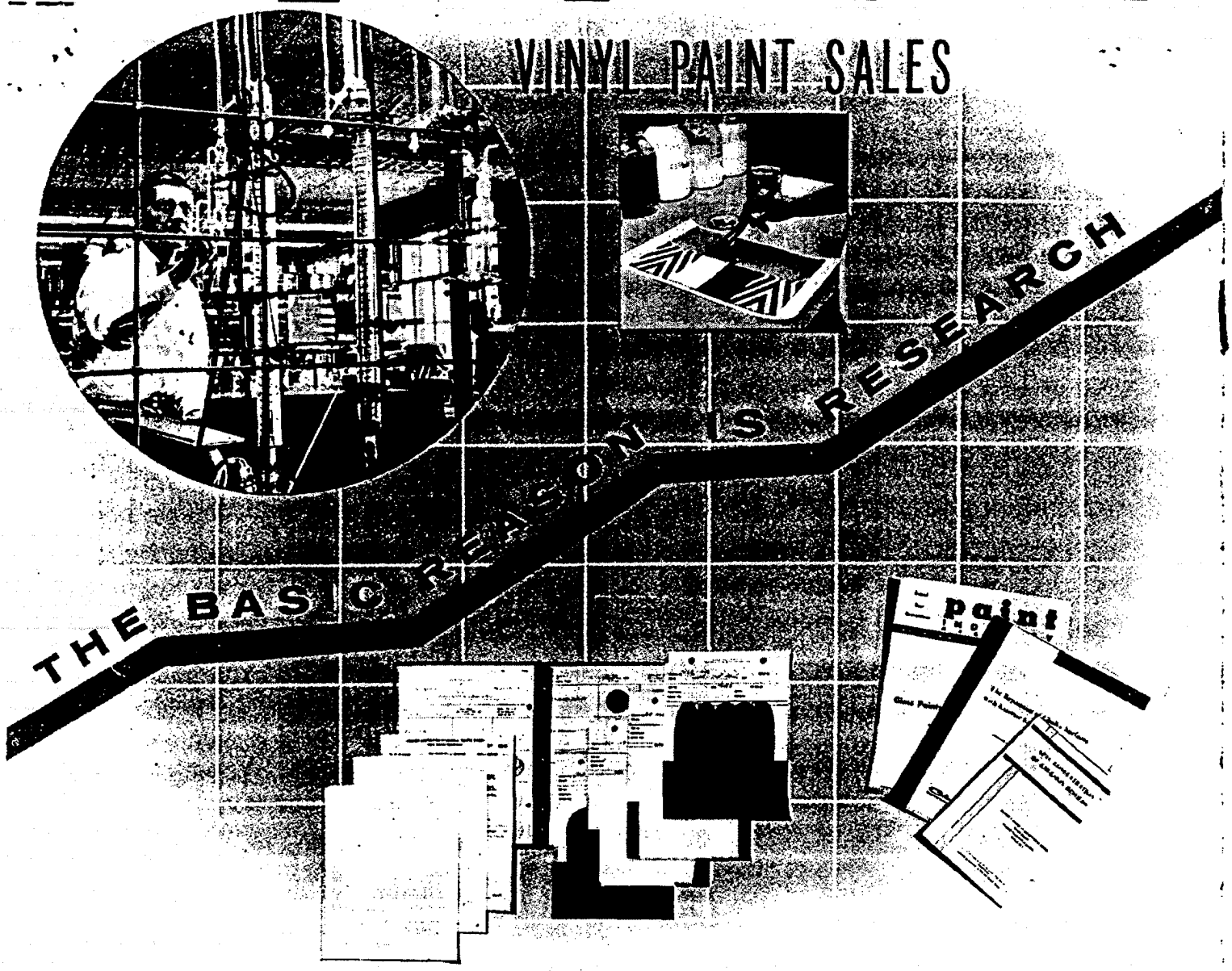


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CHECK ITEM 68

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