



S. F. Gaffin, J. T. Baker Chem. Co.
H. F. Ory, Ralston-Purina Co.
W. O. Hanson, John Morrell & Co.

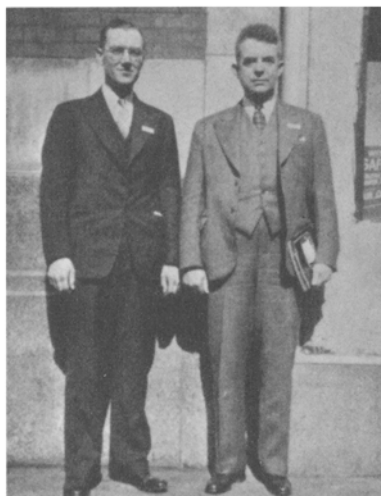


E. R. Luckow, Allen B. Wrisley Co.
J. Wrench, Industrial Chemical Sales Co.
J. P. Harris, Industrial Chemical Sales Co.
E. R. Barrow, Barrow-Agee Laboratories



M. M. Durkee, A. E. Staley Mfg. Co.
E. B. Freyer, Spencer-Kellogg & Sons Co.
N. F. Kruse, Central Soya Co.

ELEVENTH FALL MEETING



C. E. Morris, Armour & Co.
W. G. McLeod, Canada Packers, Ltd.



H. E. Moore, Capital City Products Co.
J. Bourner, Capital City Products Co.

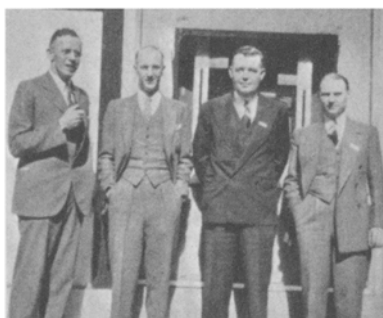
THE largest fall convention of The American Oil Chemists' Society came to a close on Friday afternoon, October 15, after what many termed the most successful meeting the Society has ever held. The meeting was held at the Hotel La Salle in Chicago on October 14 and 15. The total registrations surpassed all previous ones, 242 members and guests having registered. This exceeds the 214 registered for the fall meeting last year, which was the largest previous figure.

The program was most attractive, a large number of soap, fat, and oil papers as well as interesting committee reports being presented. The program appeared in full in the October issue and is not repeated here. An innovation was introduced into the program by the local committee this year, when it organized a symposium on solvent extraction. This proved a particularly attractive feature of the pro-

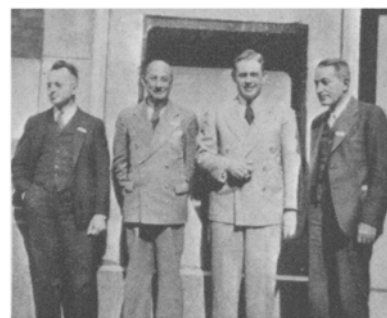
gram. The interest shown in the symposium suggests that others of a similar nature be arranged for future meetings. It is suggested that you send your ideas as to subjects for discussion in symposia of this kind to President Sheely or to the editor of this journal. Such suggestions will be of material aid to the committees planning meeting programs.

The registrants enjoyed an inspection trip through the A&P Bakeries and the American Institute of Baking on Thursday afternoon. Three bus loads took the trip, giving an indication of the interest shown. The Society wishes, at this point, to express its gratitude to the individuals in these organizations who so carefully arranged for and conducted the group.

The major social event of the convention was the banquet held on Thursday night at Old Heidelberg Inn. This affair was attended by



Herbert Sieck, Sieck & Drucker Co.
R. R. King, Interstate Cotton Oil Co.
L. M. Gill, Darco Sales Corp.
H. C. Olein, Cudahy Bros. Co.



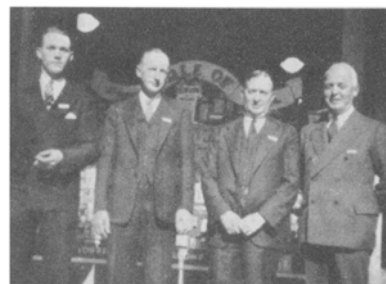
R. B. Trusler, Davies-Young Soap Co.
A. A. Kramer, L. A. Saloman & Bro. Co.
K. T. Anderson, Skelly Oil Co.
H. R. Kraybill, Purdue University

about 165 guests, all of whom enjoyed an excellent meal and fine entertainment. Music and song which excels that supplied by the musicians and the Old Heidelberg Octette is difficult to find. The guests departed well pleased and will long remember this dinner.

The Ladies Committee arranged for the entertainment of visiting ladies, suiting the entertainment to the taste of the individual guest. Luncheons were enjoyed as guests of the Society at the two regular luncheons during the convention.

Theater parties were arranged by some of the ladies. The members of the local Ladies Committee were as follows:

- Mrs. E. H. Harvey
- Mrs. R. C. Newton
- Mrs. W. H. Irwin
- Mrs. W. D. Reid
- Mrs. M. L. Sheely
- Mrs. H. L. Roschen
- Mrs. L. M. Tolman
- Mrs. J. J. Vollertsen
- Mrs. V. Conquest
- Mrs. J. P. Harris
- Mrs. A. E. MacGee



R. H. Lamping, John J. Dupps Co.
 J. W. Hayward, Archer-Daniels-Midland Co.
 C. P. Long, Procter & Gamble Co.
 S. O. Sorenson, Archer, Daniels-Midland Co.

A.O.C.S. ANNUAL BOWLING TOURNAMENT

Forty bowlers competed in the eighth annual bowling tournament of the American Oil Chemists Society, held on the evening of October 15 at the Medinah Athletic Club, Chicago. As usual, the bowling ranged all the way from the sublime to the ridiculous and the evening was enjoyed by both spectators and bowlers.

The amazing Amaizo team rolled the high team score, winning the beautiful Amaizo trophy. This being the third time for this team to win the trophy, it became their permanent possession.

The trophy was offered to the society for competition five years ago by Mr. R. E. Daly of the American Maize Products Co., after the Amaizos had won the Nuchar cup, the previous trophy, in three consecutive victories. The Amaizos are to be congratulated on their consistently fine bowling which has brought the cup back to their plant for a permanent resting place.

The team entries, their scores, and the prize winners were as follows:

Amaizos (American Maize Products Co.)	831	890	980	2701
Lifebuoys (Lever Bros.)	885	875	872	2632
Stars (Armour & Co.)	789	818	844	2451
Precision (Precision Scientific Co.)	779	762	784	2325
Premiums (Swift & Co.)	676	751	843	2270
Drene (Procter & Gamble Co.)	613	781	853	2247
Nuchars (Industrial Chem. Sales Co.)	635	708	774	2117
Certified (Wilson & Co.)	673	655	607	1935



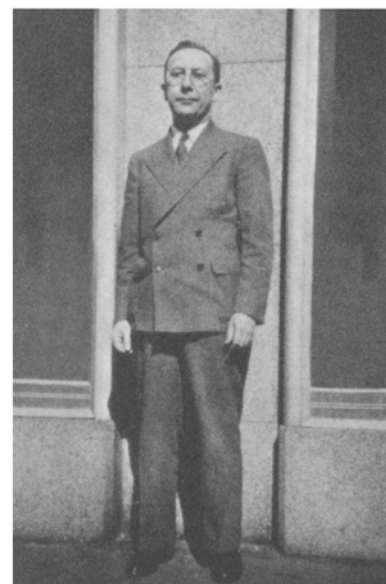
M. L. Sheely, Armour & Co.
 E. H. Harvey, Wilson & Co.
 H. A. Schuette, Univ. of Wisconsin



Albert H. Bruecke, Hansa-Muhle Oil Co., A-G



A. F. Irwin, Allis-Chalmers Mfg. Co.



Max Albert, Honeyead Products Co.

Event	Prize	Won by	Score
5-Man Teams— High score, three games	Amaizo Trophy....	Amaizos	2701
5-Man Teams — 2nd high score, 3 games	5 high speed orange juicers	Lifebuoys	2632
5-Man Teams— High single game.	5 sets nested chro- mium ash trays..	Amaizos	980
Individual high score, 3 games	1 set Caliente ware.	H. Hutton	583
Individual high score, 1 game	1 set Caliente ware.*	D. Chase	208

(*Won by drawing—2nd high or low men participating. W. McAllister lost to D. Chase—H. Spannuth lost to E. Christopher—A. F. Frantz lost to C. M. Steineker.)

Event	Prize	Won by	Score
Blind handicap event, high game with handicap	1 Soda King seltzer bottle	J. Morrow	279
Blind handicap event, 2nd high game with handicap....	1 Silex coffee urn..	J. Pearcy	277
Blind handicap, low game with hcp...1	1 sport binocular...*	E. Christopher..	132
Member prize—High score, 3 games...1	1 Silex coffee urn..	W. E. Oyler...	561
Member prize—High score, 1 game....1	1 set Caliente ware.*	C. M. Steineker	185
Consolation prize— low score, 3 games	1 doz. golf balls....	G. Crapple.....	210

The Committee wishes to thank those participating for the excellent co-operation shown throughout the tournament. The problem of reserving sufficient alleys for a one-night tourney during the bowling season is not an easy one, and the Committee wishes to express its regrets to those who would have liked to bowl but were prevented by lack of alleys.

We are looking forward to the next fall meeting and a bigger and better annual tournament.

Exhibitors

The Society's especial thanks are due our exhibitors for taking the time and trouble to bring equipment and literature for our examination. The exhibits were interesting and highly instructive, showing new industrial as well as laboratory apparatus. A list of exhibitors appears below:

E. H. Sargent & Co., Chicago, Illinois.

Skelly Oil Co., Tulsa, Okla.
Industrial Chemical Sales Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Chicago, Ill.
Merck & Co., Rahway, N. J.
Schwarz Laboratories, Inc., New York, N. Y.
Central Scientific Co., Chicago, Illinois.
Precision Scientific Co., Chicago, Illinois.
Darco Corp., New York, N. Y.
Rascher & Betzold, Inc., Chicago, Illinois.
The V. D. Anderson Co., Cleveland, Ohio.
Foster Wheeler Corp., Chicago, Illinois.
L. A. Salomon & Brother, New York, N. Y.
The Dicalite Co., Chicago, Ill.
Ralston Purina Co., St. Louis, Missouri.
The Duriron Co., Dayton, Ohio.
Kewaunee Mfg. Co., Kewaunee, Wisconsin.

American Can Co., Chicago, Ill.
Kimble Glass Co., Vineland, New Jersey.
Laboratory Construction Co., Kansas City, Mo.
Aluminum Company of America, Pittsburgh, Pa.
Allegheny Steel Co., Chicago, Ill.

The Society's thanks are herewith expressed to the Local Committee for its arrangement of a successful convention, particularly to Mr. J. P. Harris, who acted as Chairman, and to Dr. R. C. Newton, who arranged the program; to the Ladies Committee for its work in entertaining visiting ladies; and to Messrs. Stewart and Howe of the Hotel LaSalle for their efforts in making the guests and the convention quarters comfortable.

Interspersed through this account are a number of photographs snapped by our excellent cameraman, A. E. MacGee. These show some of the registrants as they appeared at the meeting.

REGISTRATION LIST

AMERICAN OIL CHEMISTS' SOCIETY MEETING, OCTOBER 14-15, 1937

Albers, Clayton H., Swift & Company, Chicago.
Albert, Max, Honeymead Products Co., Cedar Rapids, Ia.
Alderks, O. H., Procter & Gamble Co., Ivorydale, Ohio.
Alexander, George James, Hecker Products Corp., Baltimore, Md.
Alexander, Knox L., Best Foods, Inc., Chicago.
Anderson, K. T., Skelly Oil Co., Chicago.
Andrews, John S., General Mills, Inc., St. Paul, Minn.
Andrews, John T. R., Procter & Gamble Co., Ivorydale, Ohio.
Arvin, J. A., Sherwin-Williams Co., Chicago.
Ayer, George A., Swift & Co., Chicago.

Baker, Allen M., Armour & Co., Chicago.
Barrow, E. R., Barrow-Agee Laboratories, Inc., Memphis, Tenn.
Bauer, Stewart, Armour & Co., Chicago.
Beatty, Newell, Durkee Famous Foods, Chicago.

Belfry, A. M., Brown Instrument Co., Chicago.
Bennett, Edwin J., Bennett Clark Co., Nacogdoches, Texas.
Betzold, Rascher & Betzold, Inc., Chicago, Ill.
Blake, R. E., Best Foods, Inc., Chicago.
Bliss, H. H., The Dicalite Co., Chicago.
Boley, Elbert L., Armour Soap Works, Chicago.
Bollens, W. F., Swift & Co., Chicago.
Borkowski, C. J., The Best Foods, Inc., Chicago.
Boruff, C. S., Hiram Walker & Sons, Inc., Peoria, Ill.
Bourner, James, Capital City Products Co., Columbus, Ohio.
Bowman, Jay, Wilson & Co., Chicago.
Brandt, L. W., Cudahy Bros. Co., Cudahy, Wis.
Breden, E. R., Miner Laboratories, Chicago.
Brown, G. W., Brown Instrument Co., Chicago.
Brown, M. M., Pittsburgh Provision & Packing Co., Pittsburgh, Pa.
Bruce, G. Norman, Durkee Famous Foods, Chicago.

Brommer, Emil H., Hercules Powder Co., Milwaukee, Wis.
 Bruecke, Albert H., 30 Rockefeller Plaza, New York City.
 Budde, E. F., Quaker Oats Co., Board of Trade Bldg., Chicago.

Cahn, F. J., Emulsol Corp., Chicago.
 Campbell, E. W. D., Canada Packers, Ltd., Toronto, Ont.
 Carlin, Geo. T., Swift & Co., Chicago.
 Carroll, Gus H., Best Foods Co., Chicago.
 Carruth, Frank E., Maywood Chemical Works, Maywood, Ill.
 Carter, Orville W., Christensen Oil Co., Milwaukee, Wis.
 Christenson, C. W., Armour & Co., Chicago.
 Clarke, W. T., Rockwood & Co., Brooklyn, N. Y.
 Colt, E. W., Armour Soap Works, Chicago.
 Cooper, Glenn E., The Rath Packing Co., Waterloo, Ia.
 Craig, J. D., Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
 Crapple, Geo. A., Wilson & Co., Chicago.
 Culkin, Lawrence F., John F. Jelke Co., Chicago.
 Currier, Edw. Allen, Lever Bros. Co., Hammond, Ind.

Dahms, Alfred A., Allis Chalmers Mfg. Co., Chicago.
 Dean, D. K., Foster Wheeler Corp., New York City.
 Degavre, Martin L., Colgate-Palmolive-Peet Co., Jeffersonville, Ind.
 DePoy, A. G., Swift & Co., South St. Paul, Minn.
 Diehm, M. M., Lever Bros. Co., Hammond, Ind.
 Dittbrenner, R. A., Duriron Co., Inc., Dayton, Ohio.
 Divine, Robert E., Hooker Electrochemical Co., Niagara Falls, N. Y.
 Durkee, M. M., A. E. Staley Mfg. Co., Decatur, Ill.

Eckey, E. W., Procter & Gamble Co., Ivorydale, Ohio.
 Eichberg, Jos., American Lecithin Co., Elmhurst, Long Island.
 Eisenlohr, G. W., The M. Werk Co., Cincinnati, Ohio.
 Elder, L. W., General Foods Corp., Battle Creek, Mich.
 Erwin, Arthur F., Allis Chalmers Mfg. Co., Milwaukee, Wis.
 Etheredge, M. P., Mississippi State Chemical Lab., St. College, Miss.

Fash, R. H., Fort Worth Laboratories, Fort Worth, Texas.
 Fahrney, Howard J., Aluminum Co. of America, New Kensington, Pa.
 Fenderson, H. C., Lever Bros. Co., Cambridge, Mass.
 Fiala, Oliver J., Durkee Famous Foods, Chicago.
 Foerster, C., Darling & Co., Chicago.
 Frankenhoff, E. T., The Dicalite Co., Chicago.
 Frantz, A. F., Merck & Co., Inc., Rahway, N. J.
 Freyer, Egbert, Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
 Flynn, J. W., Lever Bros., Hammond, Ind.

Gaffin, Fisher, J. T. Baker Chemical Co., Chicago, Ill.
 Gaffney, Mary, Armour Soap Works, Chicago.
 Gangloff, W. C., The Drackett Co., Cincinnati, Ohio.
 Gannon, James E., Lever Bros. Co., Hammond, Ind.
 Gavens, W. O., Aluminum Co. of America, Chicago.
 Gerhart, Leonard J., Archer-Daniels-Midland Co., Chicago.
 Gill, L. M., Darco Corporation, New York, N. Y.
 Gillham, R. P., Kimble Glass Co., Chicago.
 Golwynne, Henry A., Rufert Chemical Co., New York.
 Goodwin, Phil, Laboratory Construction Co., Kansas City, Mo.
 Grant, G. G., Lever Bros. Co., Hammond, Ind.
 Grettie, Dr. D. P., Swift & Co., Chicago.
 Griem, M. E., Cudahy Bros. Co., Milwaukee, Wis.
 Guillaudeu, Arthur, Swift & Co., Chicago.
 Guiney, Wm. E., Lever Bros. Co., Hammond, Ind.
 Gunther, J. K., Swift & Co., Chicago.

Haas, L. W., W. E. Long Co., Chicago.
 Hagberg, Ralph A., Industrial Chemical Sales Div., Tyrone, Pa.
 Hanson, W. O., John Morrell and Co., Ottumwa, Ia.
 Harper, Ralph L., Swift & Co., Chicago.
 Harris, Benj. R., The Emulsol Corp., Chicago.
 Harris, John P., Industrial Chemical Sales Division, Chicago.
 Hartley, M. L., Vegetable Oil Products Co., Wilmington, Calif.
 Harvey, E. H., Wilson & Co., Chicago.
 Harwood, Rodney T., John F. Jelke Co., Chicago.
 Hayward, J. W., Archer-Daniels-Midland Co., Minneapolis, Minn.
 Heizog, E. H., Lever Bros. Co., Hammond, Ind.
 Hendry, Walderssee, Spencer-Kellogg Company, Buffalo, N. Y.
 Henry, J. B., Jr., Allegheny Steel Co., Chicago.
 Hicks, James L., General Chemical Co., Chicago.
 Hitchcock, L. B., Hooker Electrochemical Co., Niagara Falls, N. Y.
 Holbrook, G. M., Armour & Co., Chicago.
 Horst, W. P., The Naugatuck Chemical Co., Naugatuck, Conn.
 Hubbard, W. S., Schwarz Laboratories, Inc., New York City.
 R. W. Hufferd, Kendall Refining Co., Bradford, Pa.
 Hughes, P. H., Swift & Co., Chicago.

Jacobson, Ted, Bisbee Linseed Company, Chicago Heights, Ill.
 Jameson, M. M., Milwhite Co., Inc., Long Island City, N. Y.
 Jespersen, H. B., Hanson van Winkle Mining Co., Matawan, N. J.
 Johann, D. A., Elliott Company, Chicago.
 Joyner, N. T., Lever Bros. Co., Hammond, Ind.

Kala, T. I., Finnish Legation, Tokyo, Japan.
 Kanter, M. B., Precision Scientific Co., Chicago.
 Katzman, Morris, Emulsol Corp., Chicago.
 Kelm, E. F., Corning Glass Works, Corning, N. Y.
 King, A. E., Swift & Co., Chicago.
 King, R. R., Interstate Cotton Oil Refg. Co., Sherman, Texas.
 Kilgore, L. B., Kilgore Development Corp., Washington, D. C.
 Kirby, J. H., The Humko Co., Memphis, Tenn.
 Kishlar, Lamar, Purina Mills, St. Louis, Mo.
 Kramer, Alfred A., L. A. Salomon & Bro., New York City.
 Kraybill, H. R., Purdue University, West LaFayette, Ind.
 Kreft, Earl A., Wilson & Co., Chicago.
 Kruse, Norman F., Central Soya Company, Decatur, Ind.

Lament, H. H., Sharples Specialty Co., Philadelphia, Pa.
 Lamping, R. H., John J. Dupps Co., Cincinnati, Ohio.
 Lange, Raymond E., Fuel Oil Co. of St. Louis, St. Louis, Mo.
 Langen, G. E., Archer-Daniels-Midland Co., Chicago.
 Lappen, J. J., A. E. Staley Mfg. Co., Decatur, Ill.
 Larson, Harry, Allen B. Wrisley Co., Chicago.
 Lawrence, P. A., Interstate Cotton Oil Refg. Co., Sherman, Texas.
 Lantz, Claude W., Swift & Co., Chicago.
 Lennox, C. E., Swift & Co., Chicago.
 Lichty, R. E., Skelly Oil Co., Chicago.
 Lieb, Wm. E., Allen B. Wrisley Co., Chicago.
 Long, C. P., Procter & Gamble Co., Ivorydale, Ohio.
 Long, Walter L., Central Scientific Co., Chicago.
 Luckow, Elmer R., Allen B. Wrisley Co., Chicago.
 Lundmark, J. C., The V. D. Anderson Co., Cleveland, Ohio.

Macdonald, D., Brown Instrument Div., Chicago.
 MacGee, A. Ernest, Skelly Oil Co., Chicago.
 Marceau, E. T., Hecker Products Corp., New York, N. Y.
 Markley, K. S., U. S. Regional Soybean Lab., Urbana, Ill.
 Martin, F. A., Schaar & Co., Chicago.
 Mathews, Martin B., R. R. Street & Co., Chicago.
 Maveety, Donald J., National Biscuit Co., New York.
 McAllister, W. H., Procter & Gamble Co., Ivorydale, Ohio.
 McBride, R. M., The Milwhite Co., Inc., Houston, Texas.
 McKinney, Robert S., Bureau Chemistry and Soils, Dept. Agriculture, Washington, D. C.
 McLeod, W. G., Canada Packers, Ltd., Toronto, Ont.
 Millard, R. E., Aluminum Co. of America, Chicago.
 Miller, Dwight, Hiram Walker & Sons, Peoria, Ill.
 Miller, Robert, Armour & Co., Chicago.
 Milner, R. T., Regional Soybean Lab., Urbana, Ill.
 Mitchell, Harold S., Swift & Co., Chicago.
 Moffat, H. A., Industrial Chemical Sales Division, Chicago.
 Moore, G. A., Corn Products Refg. Co., Argo, Ill.
 Moore, H. E., Capital City Products Co., Columbus, Ohio.
 Morris, C. E., Armour & Co., Chicago.
 Newton, R. C., Swift & Co., Chicago.
 Nichols, C. H., Swift & Co., Chicago.
 Nickelson, R. E., J. T. Baker Chemical Co., Chicago.
 Nicoll, J. M., American Can Co., Maywood, Ill.

Oberly, L. A., Hart & Harrington, Inc., Chicago.
 Odeen, Henry, Filtrol Co., Philadelphia, Pa.
 Olien, Henry, Cudahy Bros., Cudahy, Wis.
 Orthmann, Aug. C., The Orthmann Laboratories, Inc., Milwaukee, Wis.
 Ory, Harold, Ralston Purina Co., St. Louis, Mo.

Packard, O. B., The Best Foods, Inc., Chicago.
 Pagnucco, J. W., Procter & Gamble Co., Chicago.
 Parker, H. O., Mathieson Alkali Works, New York City.
 Pederson, R. R., Swift & Co., Chicago.
 Peterson, W. A., Colgate-Palmolive-Peet Co., Jersey City, N. J.
 Phelps, G. W., Swift & Co., Chicago, Ill.
 Pickard, Glenn H., 9 S. Clinton St., Chicago.
 Piskur, M. M., Swift & Co., Chicago.
 Potts, R. H., Armour & Co., Chicago.
 Pritchett, Walter C., Armour & Co., Chicago.

Radius, Leonard, Wilson & Co., Chicago.
 Randa, Edward, Armour Soap Works, Chicago.
 Raney, Murray, Gilman Paint & Varnish Co., Chattanooga, Tenn.
 Rascher, Chas., Rascher & Betzold, Inc., Chicago.
 Rauch, Leo A., Schaar & Co., Chicago.
 Reese, W. J., Colgate-Palmolive-Peet Co., Kansas City, Kan.

Re'd, W. D., Swift & Co., Chicago.
 Richert, Dr. T. G., Albert H. Bruecke, New York City.
 Richie, H. B., Swift & Co., Chicago.
 Roberts, P. B., Hild Floor Machine Co., Chicago.
 Rooney, F. M., Precision Scientific Co., Chicago.
 Roschen H. L., Swift & Co., Chicago.
 Rupp, Virgil R., Kingan & Co., Indianapolis, Ind.
 Ruston, N. A., Emery Industries, Inc.

Sandtner, J. S., Swift & Co., Chicago.
 Sandy, D. D., Wadhams Oil Co., East Chicago, Ind.
 Schaar, A. E., Schaar & Co., Chicago.
 Schille, J. L., Best Foods, Inc., Chicago.
 Schroder, Arthur, Pure Oil Co., Evanston, Ill.
 Schuette, H. A., University of Wisconsin, Madison, Wis.
 Sharples, W. P., Sharples Specialty Co., Philadelphia, Pa.
 Sheely, M. L., Armour Soap Works, Chicago.
 Shipner, J. R., Cudahy Packing Co., South Omaha, Nebr.
 Sipple, H. L., American Can Co., Maywood, Ill.
 Shortal, C. F., Schutte & Koerting Co., Chicago.
 Sieck, Herbert, Sieck & Drucker, Inc., Chicago.
 Siegel, E. A., Lever Bros. Co., Hammond, Ind.
 Skarda, W. C., Lever Bros. Co., Hammond, Ind.
 Sorensen, S. O., Archer-Daniels-Midland Co., Chicago.
 Spannuth, H. T., Wilson & Co., Chicago.
 Spielman, L. A., Durkee Famous Foods, Chicago.
 Stanger, O. C., Miner Laboratories, Chicago.
 Starkie, Frank L., Thomas E. O'Neill Co., Chicago.
 Stauffer, Chas. E., R. R. Street & Co., Chicago.
 Steineker, C. M., Durkee Famous Foods, Louisville, Ky.
 Stern, Paul L., Clinton Company, Clinton, Iowa.

Stingley, D. V., Armour & Co., Chicago.
 Stockmann, G. J., Wurster & Sanger, Inc., Chicago.
 Stucker, Jos. B., Pure Oil Co., Chicago.
 Sutker, L. L., Wilson & Co., Chicago.

Taylor, W. L., Archer-Daniels-Midland Co., Chicago.
 Tefft, H. D., Institute of American Meat Packers, Chicago.
 Thornton, M. H., Purdue University, West LaFayette, Ind.
 Todd, Van Winkle, Hanson Van Winkle Mining Co., Matawan, N. J.
 Tolman, L. M., Wilson & Co., Chicago, Ill.
 Trainor, Geo. W., Darling & Co., Chicago.
 Trusler, R. B., The Davies-Young Soap Co., Dayton, Ohio.

Vahlteich, H. W., The Best Foods, Inc., New York City.
 Van Zile, B. S., Colgate-Palmolive-Peet Co., Jersey City, N. J.
 Vibrans, F. C., Institute of American Meat Packers, Chicago.
 Voorhees, Vanderveer, Standard Oil Co., Chicago.

Wannemaker, T. R., Southern Cotton Oil Co., Chicago.
 Wilcox, H. C., Swift & Co., Chicago.
 Wilkins, Chas. E., Best Foods, Inc., Chicago.
 Wrench, Jos., Industrial Chemical Sales Division, New York City.
 Wood, Arthur H., Corn Products Refg. Co., Argo, Ill.
 Wright, R. E., Lever Bros., Hammond, Ind.
 Wurster, O. H., Wurster & Sanger, Inc., Chicago.

Young, L. E., L. E. Young Co.

Zebbs, Francis, Armour & Co., Chicago.
 Zeigler, C. C. Swift & Co., Chicago.

NOTE ON THE SPECTROPHOTOMETRIC GRADING OF VEGETABLE OILS ON THE N" LOVIBOND SCALE*

By KASSON S. GIBSON**

A PAPER PRESENTED AT THE 28TH ANNUAL MEETING OF THE AMERICAN OIL CHEMISTS' SOCIETY AT DALLAS, MAY 13-14, 1937.

CONTENTS

- I. Introduction.
- II. Color Grading of Oils on the N" Scale.
- III. Effect of Lightness of an Oil on its Color Grade.
- IV. Conclusions.

ABSTRACT

On the basis of data published by McNicholas, it is shown that there is no significant correlation between the lightness or darkness of an oil and the Lovibond grade assigned to the oil by the practical color grader. The Lovibond color grade of a vegetable oil may therefore be computed from its spectral transmittance by colorimetric methods without taking into account the luminous transmittance of the oil. This method of grading might serve to settle disputes among the oil chemists as to the correct Lovibond grade of an oil.

I. INTRODUCTION

In 1935 McNicholas published a paper,¹ giving the spectral trans-

mittances of 125 vegetable oils, 111 of which were from the cotton seed, together with the spectral transmittances of the various Lovibond glass combinations used in the commercial color grading of such oils, and illustrating the colorimetric values assigned to both the oils and the glasses on the basis of the O.S.A. observer and co-ordinate system.² He furthermore showed that some oils are much lighter, and some much darker, than Lovibond glass combinations of the same chromaticity, and that even if of the same lightness, or even if photometric means be employed to eliminate the brightness difference between the oil and the glasses in the colorimeter, there still remains in most cases a distinct chromaticity difference which no adjustment of Lovibond red will eliminate.

However, by graphical methods, based on work by Judd,³ McNicholas was able to determine the Lovibond red numeral which in combination with the 35-yellow would give the closest chromaticity match

for any given oil. He was thereupon enabled to compare the Lovibond grades of the oils thus determined from spectrophotometric data with the respective grades previously assigned to the oils by the donors according to the usual methods.

This paper by McNicholas is without question of fundamental importance in any future study of colorimetric methods of oil grading. Furthermore, the graphical method of deriving the Lovibond grade of an oil from spectrophotometric data may prove acceptable for use by a standardizing laboratory such as the National Bureau of Standards, in those cases where there is dispute among the chemists as to the Lovibond grade of an oil.

The question of the bureau's thus computing the N" grade of an oil from its measured spectral transmittance, and in this way serving as arbiter if this were desired by the oil chemists, was raised by Mr. L. M. Gill, Chairman of the A.O.C.S.

*Publication approved by the Director of the National Bureau of Standards of the U. S. Department of Commerce.

**Chief, Colorimetry Section, National Bureau of Standards.