

Latent Heat BTU/lb. at atmos.	166	159	183	Free Fatty Acids	Loss	Color of Refined Oil	Caustic Used
Vapor pressure:				1.6.....	6.2	35 Yellow 4.1 Red	8.5% 12 Be
Lbs. per sq. in. ga. at 60° F.	11.6	24	92.4	2.5.....	6.7	7.0	10.3 12
80° F.	22.9	39.2	128.1	1.6.....	6.4	4.3	8.5 12
100° F.	37.5	59	172.0	1.6.....	6.4	4.3	8.5 12
120° F.	56.1	83.3	225.0	1.7.....	6.8	3.8	8.7 12
				1.6.....	6.8	4.1	8.5 12
				1.6.....	5.0	6.5	8.5 12
				1.1.....	3.6	8.8	7.5 12

Sources:

Oberfell and Alden—Natural Gasoline.
 Haslam and Russell—Fuels and Their Combustion.
 Dana Jenkins, Burdick and Timm—Ref. Eng. Vol. 12,
 No. 12.
 Pittsburgh Equitable Meter Co. Handbook.
 Philgas Co.

Most of the properties of these hydrocarbons have been thoroughly investigated and may be readily obtained from numerous sources so that no difficulty in designing equipment for their use is to be anticipated from the lack of knowledge of the properties of the solvents. Furthermore, the petroleum industry has had long experience in handling the huge volumes of these materials under conditions much more severe than any which would be encountered in vegetable oil extraction.

In making our experiments on these solvents, we have used a pressure extractor, or cylinder, with internal diameter of about 3 inches and 36 inches long, equipped with pressure gauges, thermometers, upper and lower feed lines and by-passes, and holding about 2,000 grams of meats. The solvent was stored in tanks under 20 to 200 lbs. pressure and fed directly to the charged extraction cylinder, through a measuring tank. Experiments were made with down flow and also up flow of solvent. Three washings were made on each charge, with a suitable quantity of solvent to fill the voids in the charge and to cover the meats, and the oil left in the meal was less than 1½%. The yield of oil was 97% or more of the theoretical possible. This oil, as mentioned before, is of light color, good appearance, and of a quality much different from that of usual extracted oils.

The following table shows the results of refining tests made on extracted cottonseed oils, refined according to the standard methods of the American Oil Chemists Society:

These losses are considered to be higher than would occur in practice, as the samples of oil still contained some meal and moisture and would be better clarified in plant practice.

By releasing the pressure, the solvent was changed to a gas again and thus removed from the extracted oil. However, in practice, agitation, and possibly the use of a little open steam would facilitate this. Under laboratory procedure, some of the oils retained traces of solvents, but others refined to a prime grade completely free from all traces of the hydrocarbon.

One test was made with the extractor charged with ground whole cottonseed. The resultant oil was also light colored as made, and refined to 35 Yellow 6.0 red with a loss of 4.2%.

One test was made by extracting cottonseed meats obtained from a crude oil mill, and comparing the extracted oil with the pressed oil made by the mill at the same time. The pressed oil gave a color of about 9.5 with 13.7 loss while the extracted oil refined to about 5.3 red with 11.7 loss.

In the laboratory the extracted meal was aired only, and in a short time was completely free of any taste or odor of solvent. The meal was light colored, soft, easily pulverized, and with the characteristic odor of cottonseed.

Other tests are being made on soybeans, peanuts, etc., as well as on packing plant materials.

It would seem that this process offers possibilities to the oil crushing industry which are very intriguing in these days of little or no profits, as it offers a method of increasing the oil yield at a low cost, with satisfactory results in the quality of both oil and meal. Any process which will increase the value of the products \$1.50 to \$2.00 a ton should prove very interesting.

THE CHICAGO CONVENTION

OCTOBER 11 AND 12

A meeting of the Chicago convention Committee of The American Oil Chemists' Society was called by Chairman Irwin at Swift & Co. on June 21st. It was definitely decided to hold this year's meeting in the Tropical Ball Room of the beautiful Medinah Club, 505 North Michigan Avenue, which is certainly one of the show places of Chicago. This Club was built by the Medinah Athletic Club absolutely regardless of expense. It is of Oriental architectural design and is furnished with Oriental splendor, tempered only to the point of assuring its guests of every modern luxury. The location is ideal, being just north of the loop, yet very convenient to the loop and the Fair, which takes it away from the crowded activities of ordinary hotel surroundings, and will give the entire convention a homelike and cozy atmosphere.

The Committee can assure those who stop at the Medinah Club of modern, clean and comfortable rooms, most of which give a marvelous view of Lake Michigan and of The Century of Progress, itself, and the guests are entitled to all of the privileges of the Medinah Club, which includes a very fine swimming pool, bowling alleys, and a gymnasium that is one of the finest in the country. In fact, no guest of the Medinah Club needs to go outside of the Club for every possible recreational facility.

At this committee meeting, which included Chairman Irwin, Dr. L. M. Tolman, A. E. King, A. W. Putland, A. A. Robinson and J. P. Harris, a very constructive program was discussed. Other members of the Committee are Dr. J. J.

Vollersten, M. L. Sheely, A. E. MacGee and Dr. R. C. Newton.

In this connection the Committee wishes to extend an invitation to every member of the Society to send in suggestions covering the program, and any one who wishes to volunteer to present a paper himself, or has a suggestion as to some good speaker for the program, will be more than welcome.

This fall meeting at the Medinah Club will make possible by far the best entertainment that the Society has ever enjoyed in Chicago, because the Club itself will provide every one with a very wide variety of entertainment features, and in addition to this there will be a special entertainment Thursday evening, which will consist of the Second Annual dinner of the Society at the Medinah Club, only this time it will be held in the beautiful Grill Room. This is said to be the most beautiful grill in Chicago. There will be music and dancing during dinner and after dinner, and for those who do not care to dance, there will be the second annual card party. The Fifth Annual Bowling Tournament of the Society will also be held on Thursday evening, under the direction of our able impresario, Al King, who promises both more prizes and a larger entry list even than last year. Alleys will be available to any of the members at any time they desire to use them.

It is also a pleasure to announce the Second Annual Golf Tournament at Chicago, and its great success can be forecast, because Dr. L. M. Tolman will act as chairman, and he is arranging this year to hold this tournament at one of

Chicago's sportiest courses, right in the heart of the city and only 20 minutes ride from the Medinah Club, which will undoubtedly make this the best golf tournament that the Society has ever held here. A fine lot of prizes will be offered and a fine time will be enjoyed by every one. The convention is held early enough this year to insure Chicago's very best weather, so come to the meeting prepared to participate in the Golf Tournament.

The exhibits will be installed in the meeting room, and very choice space will be available to those firms desiring to present their products favorably to the chemists and executives of the oil and soap industry. Diagrams of exhibition spaces will be sent out at an early date, and firms wishing space should send in reservations promptly to John P. Harris, treasurer of the Chicago Convention Committee, Room 1511, 205 W. Wacker Drive, Chicago.

Last but not least is the second edition of The Century of Progress, which is being held at Chicago again this year, and do not let anybody tell you that this is not a better World's Fair from every angle than last year's Fair.

It is predicted that this will be the best convention that has ever been held at Chicago, just as the last New Orleans meeting was the best convention ever held in New Orleans. Our arrangements at the Medinah Club will do away with such disagreeable features attached to holding the meeting at a hotel, as inability of the members to secure suitable hotel accommodations, etc., as was experienced last year. Certainly no member who can possibly attend this meeting should miss it. "Ask the man who attended last year," and then figure that it will be just twice as good this year, and you will get some idea of what is in store for you.