pends largely upon the application of heat which is under control and can be stopped at any desired point. As a matter of fact, the success of the process will depend largely on the judgment used in regulating the first heating. I have found it better to avoid charring even though solution is not obtained. At this stage a clear liquid must not be expected. After the emulsified fat has been dissolved in the ether and finally raised by the addition of hot water the fluid in the flask will appear clear or nearly so.

WEST CHESTER, PA.

NOTE.

Changes of Color Caused by the Action of Certain Rays on Glass.— While working on this subject two articles have appeared which render a detailed account of my experiments unnecessary.

Sir William Crookes[1] has noticed that glass from South America containing manganese becomes violet on exposure to the sun's rays and Franz Fisher[2] has observed the same phenomena with ultraviolet rays from a mercury vapor lamp. There are a few suggestions quoted from the papers of Sir William that I may note:

"It would be interesting to hear if travellers in other tropical countries have observed any such change of color of glass."

My samples came from New Mexico and were intensely colored.

"It is hardly conceivable that there can be a special radioactivity of the soil in certain parts of Chili and Bolivia sufficiently powerful to produce the effect."

The sand from New Mexico was not radioactive. A bottle partly buried showed the greatest change of color where most exposed to the sun's rays. Different samples that have been exposed to the sun's ray, presumably for several years, show a depth of color approximately proportional to the manganese present.

"Sunlight and radium both produce similar effects in these respects. Their modes of action are known to be, in the main, very different, but it has been clearly shown that, in general, variation in time being disregarded, what radium is capable of doing in the way of inducing chemical change, ionizing gases, producing phosphorescence, and impressing a photographic plate, sunlight will also effect."

[1] *Chem. News*, Feb. 17, 1905, p. 73.

[2] *Ber. chem. Ges.*, S. 946, 1905.