series melt approximately 7° apart and of the latter. approximately 6° apart. The equimolar mixtures of the consecutive members in both series melt at a lower temperature than either member.

Summary

Benzamides, p-nitrobenzamides, benzenesulfonamides, p-toluenesulfonamides, p-nitrobenzenesulfonamides, and acetamides of dodecyl, tetradecyl, hexadecyl, and octadecyl amines were synthesized and evaluated as identification derivatives. Acetamides melt approximately 7° apart and the benzene sulfonamides approximately 6° apart. Seventeen previously unreported compounds were prepared.

REFERENCES

Harber, W. I., Iowa State Coll. J. Sci. 15, 18 (1940).
Massie, S. P., *ibid.*, 21, 41 (1946).
Ralston, A. W., "Fatty Acids and Their Derivatives," p. 304, New York, John Wiley and Sons Inc., 1948.
Shriner, R. L., Fuson, R. C., and Curtin, D. Y., "The Systematic Identification of Organic Compounds," 4th ed., pp. 103-106, New York, John Wiley and Sons Inc., 1956.

[Received October 29, 1956]

Suggested Additional Equipment for the Determination Of Polyunsaturated Fatty Acids¹

F. I. COLLINS and V. E. SEDGWICK,² U. S. Regional Soybean Laboratory, Urbana, Illinois

HE RAPID SPECTROPHOTOMETRIC METHOD (1) published in April 1956 can be improved by adding two simple mechanical devices. These pieces of equipment, as shown in Figure 1, are slideboard assemblies (A), which are used to drop the small cups



FIG. 1. Slideboard assemblies (A) and bottle clamps (B).

of oil into each of the bottles in a tray simultaneously, and clamps (B) used to prevent any leakage of solution during the vigorous shaking process so necessary to dissolve the isomerized mixture in methanol.

Use of these devices has increased the number of samples that can be analyzed by one technician from 36 per day to 48; has eliminated entirely any spoiled analyses from leakage; has improved the checking of duplicates; and has reduced the time of oven heating by 20 to 30 min. because of less cooling of the trays and bottles of reagent in the shortened time interval required to drop the oil cups into the bottles.

The technician should have a slideboard filled with oil cups for each tray of bottles in the oven and two clamps to accelerate the shaking procedure.



FIG. 2. Construction of a slideboard. The upper board of each assembly slides 34 in. lengthwise on the lower board and is locked in position with a pin so that the holes in the two boards do not normally coincide. Thus the 12 cups of oil, placed in the holes at the time of weighing, are supported by the lower board until they are dropped by sliding action.

Details of the construction of a slideboard are shown in Figure 2. Each of the bottle clamps, shown in Figure 1, is made of two magnesium blocks, a bolt with a wing nut, and a spring to hold the empty clamp open. Wooden or aluminum blocks in place of the magnesium blocks are equally satisfactory.

REFERENCE

1. Collins, F. I., and Sedgwick, V. E., J. Am. Oil Chemists' Soc., 33, 149-152 (1956).

[Received January 8, 1957]

¹Publication No. 290 of the U. S. Regional Soybean Laboratory. ²Chemist and Agent (Physical Science Aid), respectively, Field Crops Research Branch, Agricultural Research Service, U. S. Department of Agriculture,