Hehner and Mitchell obtained but very small proportions of stearic acid, and in some cases none. James Bell's experiments would indicate that several acid radicals were present in the same molecule—thus:

$$C_3H_5 \begin{cases} OC_4\ H_7\ O\text{—butyric.} \\ OC_{16}\ H_{31}\ O\text{—palmitic.} \\ OC_{18}\ H_{33}\ O\text{—oleic.} \end{cases}$$

Glycerine may be combined with acids in the laboratory by heating them together in a sealed tube to a temperature of 240° C. for twenty-four hours. The reverse process—hydrolization of the glycerides—can be brought about by the action of steam at 300°C.

In the body both the union and splitting up of the glycerides are affected by the agency of an enzyme or enzymes, which are found widely distributed in the body.

In the normal process of things, fat undergoes complete oxidation with the formation of carbon dioxide and water. Besides this oxidation process, there is a process of elimination going on. Thus, we find fat and soap in the bile, and Cyril Corlette's experiments show that fatty acids and soaps are formed in isolated portions of the small intestine of dogs. After a meal of fatty acids, Otto Frank always found in the small intestine more neutral fat than during hunger. Herman and Voit showed that this was excreted into the small intestine, not formed *in situ* from fatty acids.

CHART I.

| Time of Feeding. | Amount Drawn. | Amount Fed. | Amount Sample. | Stool. | Regurgitated. | Temperature. | Weight. |
|---|---|---|---|---|---|---|---|
| | c.cm. | c.cm. | c.cm. | | | | |
| 4.30 p.m. | 31 | 27.9 | 3.1 | — | — | — | — |
| 6.30 " | 40 | 36.0 | 4.0 | — | — | — | — |
| 8.30 " | 35 | 31.5 | 3.5 | — | — | 98° | — |
| 11.30 " | 31 | 27.9 | 3.1 | — | — | — | — |
| 2.30 a.m. | 32 | 28.8 | 3.2 | — | — | — | — |
| 5.30 " | 43 | 38.7 | 4.3 | — | — | — | — |
| 8.30 " | 46 | 41.4 | 4.6 | — | — | 98.2° | 3,200 |
| 10.30 " | 50 | 45.0 | 5.0 | — | — | — | — |
| 12.30 " | 33 | 29.7 | 3.3 | — | 1 p.m. | — | — |
| 2.30 " | 32 | 28.8 | 3.2 | — | — | — | — |