

Melt the 20% acid and incorporate with the liquid petrolatum, warming if necessary to effect solution. Allow to stand without agitation. A liquefying gel results.

*Other Jellified Products.*—Liquefying gels were produced when hydroxystearic acid was dissolved in other substances. Fixed oils, such as almond, linseed, cottonseed and sesame, produced gels with about 2.5% of hydroxystearic acid. Hydrocarbons such as kerosene and benzene produced transparent gels with 10% of the acid. Other hydrocarbons, benzene and toluene, required more hydroxystearic acid and produced a more opaque, somewhat granular appearing product. Gels were also produced with 10% of the acid in volatile oils such as turpentine and methyl salicylate.

#### SUMMARY

Hydroxystearic acid was shown to be a jellifying material for liquid petrolatum and fixed oils in quantities of 1 or 2 per cent. In larger quantities it also produced gels with hydrocarbons and volatile oils.

Liquefying ointments were prepared using jellified liquid petrolatum to replace petrolatum of the U. S. P. and N. F. formulas. The base appeared to be compatible with medicaments in the same manner as petrolatum and produced ointments which readily liquefied when placed upon the skin. The consistency of the final ointment varied with the amount of hydroxystearic acid present.

Used in cosmetics, the addition of hydroxystearic acid definitely improved the consistency of products containing liquid petrolatum, whether solutions or emulsions.

#### REFERENCES

- (1) Fiero, G. W., *Jour. A. Ph. A.*, 28 (1939), 598-602.
- (2) Fiero, G. W., *Ibid.*, 29 (1940), 19-23.

## Book Review

*The Chemist's Dictionary of Synonyms*, incorporating Rouse's Synonyms. Published at the Office of the Chemist and Druggist, 28 Essex Street, Strand, London, W. C. 2, 1940. 6 x 9, 136 pages. Price, postpaid, 5s., 4d.

The purpose of the publication is to supply definitions of terms for quick reference in the pharmacy and while the book is intended for the British pharmacy, it has related value for all pharmacists. Very likely British synonyms will be brought to the attention of American pharmacists more frequently because of war conditions.—E. G. E.

## The Most Comprehensive Food and Drug Bill

Introduced into the United States Congress by William H. F. Lee (May 31, 1837, to October 15, 1891) Soldier, Agriculturist and Legislator

By Lyman F. Kebler\*

Of the more than one hundred food and drug bills introduced into the United States Congress, over a period of 25 years, that finally resulted in the enactment of the National Food and Drugs Act, June 30, 1906, Representative Lee's bill (H. R. 10320), introduced (1) June 4, 1888, is considered by many the most comprehensive. This is the first of the modern food and drug bills introduced into Congress by a Representative of Virginia. Congressman R. L. T. Beale of Virginia, a member of the Congress that enacted the Drug and Chemical import law in 1848, over thirty years later, introduced the second food bill in 1879 and Representative John S. Barbour of Virginia, introduced a food bill for the District of Columbia in 1886. Neither of the two latter bills covered drugs.

#### BIOGRAPHICAL SKETCH OF AUTHOR OF BILL

Representative William H. F. Lee was born in the Lee Mansion, just across the Potomac River from the Lincoln Memorial, the second son of the illustrious General Robert E. Lee and Mary Ann Randolph (Custis) Lee, the granddaughter of Martha Washington, by her first husband. This is another instance of a Lee marrying into a wealthy, prosperous, influential family. A study of these marriages forces the conclusion that the blending of the blood and fortunes of some of these wives with the Lees were distinct assets to successive generations. There seemed to be something in the female side that inspired their sons to greater endeavors.

One of objects of some of the marriages in those days was, in part at least, the combining of fortunes and families of influence. It should be noted that the oldest son inherited the major part, if not all of the family estate and that while the younger brothers usually inherited comparatively little, some of them increased it by winning the hands of wealthy heiresses. How well some of them succeeded is shown by a study of the history (2) and

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genealogy of the Virginia Lees. Even though the daughters came in second in the matter of property inheritance, when there was a brother, the Lee sons seemed to find and win the companionship of wealthy, noble-blooded women. This subject could be profitably expanded, but it would lead us too far afield.

As the result of financial embarrassment, the necessity of educating his children in the good public schools in Alexandria, Virginia, the grandfather of William H. F. Lee moved from the beautiful Stratford Hall into modest quarters in Alexandria. Free schools were supported by taxes (3) in Virginia as early as 1739, and would probably have come earlier had not Governor Berkeley expressed opposition to them. The foundation of the Alexandria Academy was laid by the Freemasons in 1760. It was in these schools that Robert E. Lee received his early education, which was finished at West Point. He was not considered a secessionist. It was in the Alexandria schools that Robert's children obtained at least a part of their early education. It must be said, however, that information regarding their early schooling is rather fragmentary.

#### PROPERTY INHERITANCE AND SOME OF THE VICISSITUDES IN "ROONEY" LEE'S LIFE

By a complicated will of her father Mrs. Lee was given a life interest in the Lee Mansion and the Arlington tract of 1100 acres in 1857. This property on her death was to go to her oldest son, but the Civil War complicated matters. By the same will, William H. F. Lee, familiarly known as "Rooney," was left the "White House" plantation, of 4000 acres, near Richmond, Virginia. "Rooney's" academic education was obtained in Harvard University with the class of 1857. While at Harvard he is alleged to have shown the "Virginia habit of command," to which he was born and bred. He was a powerfully built man, six feet and two inches tall, pulled the stroke oar on the Harvard crew and was considered one of the best oarsmen at the time. In 1857 he was appointed second lieutenant in the United States Army, resigned his commission in 1859 and became a farmer on his "White House" estate. During the same year he married his cousin, Charlotte Wickham. At the outbreak of hostilities, between the States, being an ardent Confederate, he organized a picked cavalry, was appointed captain of cavalry and gradually was promoted to the rank of Major General as the war continued. His military career is recorded in biographies (4) and need not be considered here in detail. Suffice it to say, he was considered an efficient officer, an exemplary soldier and highly regarded by his men. He was wounded, captured, interned in Fortress Monroe, transferred to Fort Lafayette, kept as a hostage in solitary confinement, because certain United States officers were being held under sentence of death in Libby Prison. If these officers were executed, it was intended that General Wm. H. F. Lee should suffer the same fate.

Fortune intervened. The General was exchanged in March 1864. During his imprisonment his beloved wife and two children passed on.

The impression seems to prevail that there was great suffering, as is the rule in most wars, in the Southern States, because of droughts and a shortage of labor. The General probably saw his share. But statisticians tell us that there was plenty of food. The difficulty was to get the food to the places where it was needed.

After the close of the war "Rooney" returned to his "White House" estate, which was not confiscated, but he found his fine home in ashes. He there resumed agricultural pursuits until 1874, when he transferred his activities to the Ravensworth plantation, about ten miles from Alexandria, Virginia. In 1867, he married Mary Tabb Bolling, who with two children survived him. He served as President of the Virginia State Agricultural Society.

In 1876, he was elected to the Virginia Senate, took his seat (5) December 6th the same year and served until April 2, 1879. He also acted as Chairman of the Senate on occasions. He was elected three times as Representative to the United States Congress and served from 1887 to the time of his death 1891.

#### TITLE AND SOME OF THE SALIENT FEATURES OF THE LEE FOOD AND DRUG BILL

The title of the Lee Food and Drug bill (6) reads: "To prevent the sale, manufacture, or transportation of adulterated articles of food, drink, and drugs manufactured or made in one State and intended to be sold in another, or intended for export or for sale in the District of Columbia or any Territory or Reservation of the United States, and to prevent the exportation or importation of adulterated food, drink, or drugs, and for creating a pure food division in the Department of Agriculture."

It is one of the most comprehensive titles of any food and drug bill ever introduced into Congress, and if the term misbranded, of which Representative Lee is apparently the author, had been included and the language construed as of our own time, most adulterations, unfair methods of exploitations, untruthful claims and representations, including imports and exports, made for the foods, drinks and medicines covered, could have been controlled. The Lee bill was one of sixteen food and drug bills introduced into Congress during the first term of President Grover Cleveland. It followed

close on the heels of the enactment of the Oleomargarin Law and the hearings of the Agricultural Committee on lard during the latter of which some awful conditions were disclosed. The bill was referred to the Committee on Agriculture. Because of the conditions disclosed during the lard hearings no hearings were held on this bill. The bill is unique in the phraseology used and the number of features covered.

This bill embodies the designation "Pure Food" and, as defined, covers all articles of diet, drinks and drugs consumed for sustaining life or restoring health, or for beverage or medicinal purposes. This phrase was commonly used and is still used to cover food and drug legislation in general. The same idea is embodied in the phrases "Food Division" and "Food Inspectors" used in the bill.

The artificial coloring or flavoring or otherwise manipulating liquors, whether for beverage or medicinal use, so as to deceive the purchaser or consumer, as to age, source or otherwise, is prohibited. The phrase "Pure Drugs" includes all medicines recognized by the United States Board of Health, those covered by the United States Pharmacopœia and other pharmacopœias, recognized by this Board, for either internal or external use. The creation of this Board (7) was authorized by Congress in 1879.

The interstate shipment or importation of illegal foods, drinks or medicines is interdicted. Transportation companies are adjudged guilty of a misdemeanor for carrying adulterated or misbranded foods, drinks or drugs into interstate commerce. A fine of not less than \$100 nor more than \$1000 could be imposed by the court for each offense and imprisonment for a second conviction. All things considered, these were rather stiff penalties. Specific coverage of transportation companies was another new feature in this type of legislation. Later laws were passed covering the transportation of certain drugs and meats and meat food products.

Lee's bill is the first food and drug bill that contains the term "Misbranded." The elements of "Intent" and "Knowingly" do not find a place in this bill. There was

much contention as to what branch of the Government should be vested with the enforcement of this type of legislation. Congressman Lee was essentially an agriculturalist and naturally favored the Department of Agriculture. Indeed, his bill is the first that designates this Department as the enforcing agent. Provisions are made for the creation of a "Food Division" in this Department, to be supervised by a Chief who, like the Chemist, is to be appointed by the President. The Chemist is directed to make rules and regulations and establish uniform methods of analysis. Assistant chemists are to be appointed in fourteen of the large cities, named in the bill.

The bill authorizes the President to appoint one "Food Inspector" for each state and territory and the District of Columbia. These inspectors are given extensive and responsible duties, namely: the sampling of articles covered by this bill, having same verified and analyzed by the chemists; "inspect slaughter-houses and have microscopic and analytical tests made of slaughtered animals, and when they find adulterated articles of food, drink, or drugs, or tainted or diseased meat sold or offered for sale in violation of this act, they shall present the facts properly verified under oath to the district attorney, who shall immediately proceed to prosecute all violators of this act in the courts of the United States." The bill also provides for giving half of a fine to any informant whose information leads to a conviction, but he must first of all give suitable bond to cover expenses in case of failure to convict and, moreover, if there is any evil motive, he is liable to have the costs of the trial assessed against him by the court. Furthermore, any person or association was at liberty to lay any information he or it may possess before any state inspector, a United States district attorney, or a United States grand jury, but in the latter cases no part of any fine shall inure to the informant.

Any food, drink, drug or medicine or admixture or compound of the same, recognized by the National Board of Health and not deleterious to health, licensed by the

Chief of the "Pure Food Division," may be manufactured, sold or transported without any penalty of this act, provided that they are "properly designated and branded as prescribed by the rules of the said Pure Food Division, so as to give the purchaser a correct idea of what he is purchasing." The granting of a license required the payment of a registration fee not to exceed \$10.00 for each article. The language of the act in connection with the licensing and registering, were construed to give the "Food Division," the power to require manufacturers and dealers to give the consumer the composition of such articles. These requirements were not kindly received by the trade. The time was not ripe for this advanced step.

A companion bill (S. 3217) to the Lee bill was introduced into the Senate by Senator Henry W. Blair of New Hampshire, June 25, 1888. It died in committee.

#### ACTION ALONG NEW LINES STARTED BY LEE BILL

Even though the Lee bill was considered constitutionally sound, provided for honesty, fair dealing and the general welfare and it was believed that it would curb practices threatening our national health, the Committee on Agriculture, in its report (8), through its chairman, James Laird, recommended that the Lee bill be laid on the table and that the Committee's substitute bill (H. R. No. 11266) be passed. The substitute bill clarified several of the features embodied in the Lee bill. It requires the ingredients of compounded foods and drugs to be declared on the labels; provides for the inspection of live stock prior to slaughtering and the inspection of meats and meat food products thereof by veterinarians; requires suitable marking, labeling or stamping of meats and meat food products; prohibits the shipping into interstate commerce of uninspected, unlabeled, untagged or unstamped carcasses or meat or meat foods and requires manufacturers of foods and drugs to take out a Government license each, at a fee of \$10.00.

Due probably to the active interest displayed in this bill by Congress, its far-

reaching effects and the public demands for this kind of legislation, tremendous opposition thereto was aroused in various quarters. Among the features particularly obnoxious were the inspection of live stock, meats and meat food products, requiring a declaration on the label of the ingredients of compounded foods and drugs and the procuring of a Government license. Most of the features of the Lee bill and its substitute were in due time enacted into federal laws; among them may be mentioned the Reprisal Act (9) 1890; the 1891 Appropriation Act of the Department of Agriculture (10); the Serum, Virus Act of 1902 (11); the Meat Inspection Act (12) and the Food and Drug Act, both of 1906 (13) and the Food, Drug and Cosmetic Act of 1938 (14).

#### REFERENCES

- (1) *Cong. Rec.*, 19, 4888 (1888).
- (2) Hendrick, Burton J., "The Lees of Virginia" (1935); Freeman, Douglas S. R., "Biography of R. E. Lee" (1934).
- (3) Powell, Mary G., "The History of Old Alexandria, Va." (1928), page 152.
- (4) "Dict. Am. Biog." (1933); "The Nat. Encyclop. Am. Biog.," 4 (1897), 280.
- (5) *Journal of Senate, Virginia*, (1876), page 3.
- (6) House of Representative Bill No. 10320, June 4 (1888).
- (7) *U. S. Stat., at L.*, 20 (1879), 484.
- (8) House of Representative Report No. 3341, 50 Cong., (1888).
- (9) *U. S. Stat., at L.*, 26 (1890), 414.
- (10) *Idem*, 26 (1891), 1049.
- (11) *Idem*, 32 (1902), 728.
- (12) *Idem*, 34 (1906), 674.
- (13) *Idem*, 34 (1906), 768.
- (14) *Idem*, 52 (1938), 1040.

## Book Review

*Vitamin E.* A symposium held under the auspices of the Society of Chemical Industry. viii + 88 pages, 5<sup>1</sup>/<sub>2</sub> x 8<sup>1</sup>/<sub>2</sub>. 1940. New York: Chemical Publishing Company, Inc. \$2.00.

The book brings out facts on the chemical structure, chemical properties, physiological action, effects of deficiency of and clinical uses of vitamin E. The monograph is an informative treatise on this vitamin discovered in 1922 and about which comparatively little is yet known. A valuable feature is that it contains 165 references to the literature.—A. G. D.