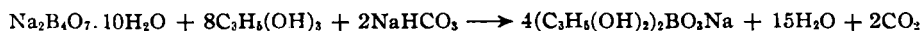


The monosodium glyceroborate is neutral to phenolphthalein while glyceroboric acid is acid to the same indicator and causes the effervescence with the bicarbonate. Glycerin and borax mixed with water and sodium bicarbonate react to produce monosodium glyceroborate, carbon dioxide and water.



John C. Krantz, Jr., asked the author if this explanation is incompatible with one he has given—that in the presence of glycerin, one molecule of borax decomposes into two molecules of sodium meta-borate plus one molecule of boric acid; and that, in turn, this boric acid reacts with the glycerin?

The author stated if that explanation is used, not so much glycerin would be required. In using a small quantity of glycerin, and then adding more, there is greater acidity.

## HISTORICAL FRAGMENTS.\*

BY EDWARD KREMERS.

### No. 23. *Le Mort's "Pharmacia."*

Possibly the earliest textbook on pharmacy that bears the simple title "Pharmacy" is that of Jacobus le Mort published in 1684. Yet pharmaceutical historians all but ignore him and his treatise. Phillippe-Ludwig<sup>1</sup> dismiss him with mere mention and the record of five treatises, among them the

"Pharmacia et Chymia medico-physica rationibus et experimentis superstructa. Lugd. Batav. 1676, 1684, 1688, 1696."

Schelenz<sup>2</sup> copied only part of Ludwig's statement. Wootton does not mention him at all. LaWall<sup>3</sup> merely refers to him as the originator of paregoric, a statement apparently based on a semi-editorial comment in the *Chemist & Druggist*.<sup>4</sup> Medical historians appear to ignore him completely. Kopp, the chemical historian, twice refers to him: the first time<sup>5</sup> in connection with the general development of pharmaceutical chemistry and the rôle played therein by pharmacists; the second time<sup>6</sup> in connection with the special history of calomel. Poggendorff's account<sup>7</sup> is of necessity brief, but his treatment of the man and his writings is more

\* Section on Historical Pharmacy, A. Ph. A., Rapid City meeting, 1929.

<sup>1</sup> "Geschichte der Apotheke" (1855), page 580.

<sup>2</sup> "Geschichte der Pharmacie," page 550.

<sup>3</sup> "Four Thousand Years of Pharmacy," page 420.

<sup>4</sup> *C. & D.*, 62 (1903), 831.

<sup>5</sup> "Geschichte der Chemie," Bd. II, page 116.

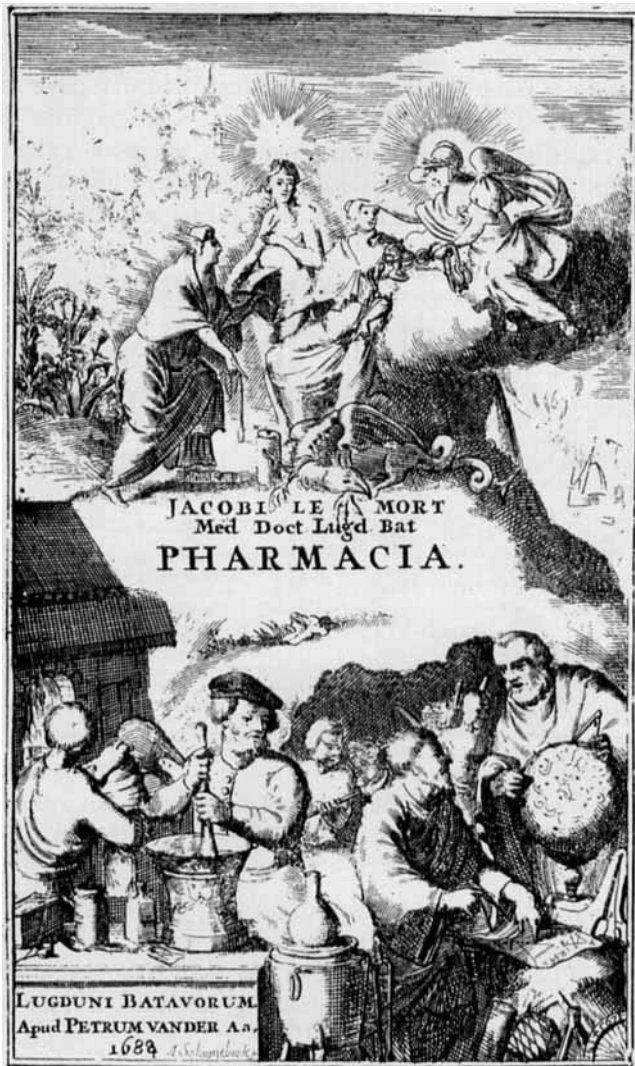
<sup>6</sup> *Ibid.*, Bd. IV, page 193.

<sup>7</sup> "Biographisch-literarisches Handwörterbuch."

liberal than that of any of the pharmaceutical historians that have come to the notice of the writer.

Of his life, the texts referred to, give but the scantiest information.<sup>1</sup> Poggen-dorff states that he was born October 13, 1650 in Harlem<sup>2</sup> and that he died March 1, 1718, in Leyden. The only additional information given is that, like his father, at first he was an apothecary; that later he became a physician, and in 1702 Professor of Medicine and Chemistry at the University of Leyden. The writer of the article in the *Chemist & Druggist*<sup>3</sup> for 1903 in connection with his discourse on paregoric makes the following additional statement: "Le Mort was a Dutchman who taught chemistry and pharmacy, first at Leyden, afterwards at Utrecht.<sup>4</sup> At Leyden he was not in the regular faculty, and was forbidden to continue his lectures and fined.<sup>5</sup> At Utrecht he became authorized Professor of Chemistry. He died at Utrecht in 1718.<sup>6</sup>

Now, as to the one of his treatises of special interest to the student of the history of pharmacy, Poggen-dorff quotes the title as "Pharmacia, rationibus



Frontispiece with abridged title.—About the size of the volume.

<sup>1</sup> Unfortunately the references given in Poggen-dorff are not available.

<sup>2</sup> He also refers to the statement made by Joecher in his *Allgemeines Gelehrten-Lexicon* (1750) that he was born in Arnheim.

<sup>3</sup> *Loc. cit.*

<sup>4</sup> This statement appears to be out of harmony with the statement that he died in Leyden.

<sup>5</sup> Was this because he taught iatrochemistry?

<sup>6</sup> Note contradiction between this statement and that of Poggen-dorff.


et experimentis auctioribus instructa" (Pharmacy taught by means of theory and experiments) and gives the date as 1684. Phillippe-Ludwig quote the title as "Pharmacia et Chymia medico-physica rationibus et experimentis superstructa" and give 1676, 1684, 1688 and 1696 as the dates of the four editions. The Surgeons General's Library records<sup>1</sup> on hand his "Pharmacia medico physica, rationibus et experimentis instructa accuratiore methodo adornata. Nec non observationibus medicis illustrata" and gives the date 1684. The copy in the private library of the writer bears on the illustrated title page the single word "Pharmacia" as title. The title page proper gives a longer title, viz.: "Pharmacia rationibus et experimentis auctioribus instructa, methodo galenico-chymica adornata" and bears as date the year 1688. On page 1 there reappears the abridged title: "Pharmacia Medico-Physica Rationibus & Experimentis Instructa" and as head

JACOBI LE MORT,  
Med. Doct. Lugd. Bat.  
**PHARMACIA**  
RATIONIBUS  
ET  
EXPERIMENTIS  
AUCTORIBUS INSTRUCTA.  
METHODO GALENICO-CHYMICA  
ADORNATA,

SENECA EPISTOLA 35.  
Ego utar via veteri, sed si propiorum planities  
tenquet invenerit, hanc mutabo. Qui ante  
pat invenerit ista, non Dumini vestigiis,  
sed Ducis sunt.



LUGDUNI BATAV. —  
Apud PETRUM VAN DER AAL, 1688.

PAG. 1  
  
**PHARMACIA**  
MEDICO-PHYSICA  
Rationibus & Experimentis Instructa.

CAPUT I.

De Pharmacia in Genere.

**P**harmacia Galenica dicta est ars, bene preparandi simplicia & misceandi composita.  
Bona preparatio ea est, quae corpora quaecunque, quantum fieri potest, in statu naturali integro conservat, salvo vel sucto odore, sapore, colore ceterisque qualitatibus.  
Bona Mixtura ex aequalitate & integritate compositi apparet, ita ut massa è diversis constat, tanquam unum idemque, in omni sua parte, corpus, sese exhibeat.  
Pharmacopoea à pharmacorum seu medicamen-

218 PHARMACIA

Vires.

Quotcumque virosos evocatos facies in corpore animaverit. Doct. a gr. 1ij. ad ʒj.

Pilula Sudoriferae.

ʒi Gummi Guaiac. ʒij.  
Extr. Contrayerv. ʒiʒ.  
Croc. ʒj.  
Myrrha ʒijj.  
Camphor. ʒijj.  
Lond. op. ʒss. M. P. Massa.

Vires.

Tribus malignis conducunt, dolores traxerit, acrimoniam temperant, venas resoluunt, sudores movent.  
Doct. a ʒss. ad ʒss.

CAP. XXVII.

De Suppositivis.

Suppositoria cum pilulis, & tabellis in confectio. Sine conveniunt. Coughis eorum solida sic exhalatione superflua humiditatis partium viscosarum luitantis, in quibus dein pulveres excipiuntur. Hi pulveres acres esse debent & salii, ut irritent & stimuli loco intestinis sint ad excretionem facilitandam. Trium precipue generum dantur:

1. si simplicibus corporibus per se sunt suppositiva

These pages are very much reduced as can be seen by reference to Frontispiece.—Left, Title Page. Center, Page 1 of the text, with its definition of Pharmacy. Right, Page 218, closing chapter on pills and beginning of chapter on suppositories.

lines on the pages of the text there appear the words "Pharmacia" and "Medico-Physica" on the opposite pages.

Whereas the Catalogue of the British Museum records the titles of a number of chemical and medical treatises by le Mort, it does not record that of his "Pharmacia." The Congressional Library does not appear to house a single one of his books. Bolton in his "Bibliography of Chemistry" mentions the chemical treatises of le Mort, but not his "Pharmacia."

So much for the title and for the libraries known to contain copies of one of the four editions mentioned in Phillippe-Ludwig. Naturally the nature of the book is of greater interest to the pharmaceutical historian than mere bibliographic information about the several editions.

Some idea of the character of the book may be gleaned from the four facsimile reproductions of as many pages:

<sup>1</sup> Surg. Gen. Cat., 2nd Series.

- 1.—The frontispiece with its abridged title.
- 2.—The title page proper.
- 3.—Page 1 of the text with its definition of pharmacy.
- 4.—Page 218 of the text containing the last formula of the chapter on pills and the introductory paragraph to the chapter on suppositories.

In addition, the index to the chapters has been copied so that the reader may obtain a more comprehensive idea of the scope of le Mort's treatise. It will be observed that after Chapter XVII "On the composition of medicaments" the remaining chapters are devoted to what we commonly call galenicals, but that such galenicals as tinctures and extracts are conspicuous by their absence. These "galenicals" were introduced by the iatrochemical school.

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