

Of the rôle which Epsom and other waters advertised in *The Intelligencer* were playing in English social life, we get some idea from Pepys. During his first visit to Epsom, July 25 and 26, 1662, he is surprised to see so many "citizens," as opposed to those higher up in society, of whom he had not known "that they had ever had it in their heads or purses to go down thither." While for his annual purge he selects a Sunday so as not to allow his "medicine" to interfere with his business, he by no means objects to a glass or more *en passant*. Thus under date of July 11, 1663, he records taking the coach to Holvorne and thence by horse to Barnett. Having bade his wife good-bye after dinner, he "and Will to see the Wells half a mile off, and then drank three glasses, and walked, and come back and drunk two more." He concludes his day's record with "not being very well, I betimes to bed."

Not everyone could afford to go to Epsom or even less fashionable "wells," hence the waters were brought to the people. This explains the advertisement. An interesting historical account of how the "waters," artificial as well as natural, were exploited has recently appeared from the pen of Wm. Kirkby.¹

It would not do to omit from this cursory account the exact wording of the advertisement which is responsible for having this copy of *The Intelligencer* brought to the attention of the writer, namely, that of "An Excellent and Approved Powder, for the Removing or Preventing of the Falling-Sickness; being also of singular Virtue against the Megrim, Swimmings in the Head, all Fainting, and Convulsion Fits; very good likewise against Worms. Is to be had at the House of *H. Breme* at the *Gun* in *Ivy-Lane*, Bookseller."

While comments on the advertisement itself seem quite unnecessary, it should be pointed out that both the "Excellent and Approved Powder" as well as the "Epsom-Water" are not offered for sale by apothecaries or druggists but that the "Approved Powder" may be had at a "bookseller" and the "Epsom-Water," etc., at the "Angel and Sun," presumably an inn.

A PHARMACEUTICAL EXAMINATION IN 1697.*

BY B. E. HOCKERT.

During a visit to Sweden in 1920 I secured a pamphlet, by Apothecary Axel Kockum, relating to the first pharmaceutical examinations in Sweden before the Royal Collegium Medicum (Board of Health). Before the Collegium Medicum was instituted by King Charles XI, in 1688, no examinations or stated requirements were demanded for starting an apothecary shop. But in the instruction given to the Collegium Medicum the King prescribed: "The old way, that the local magistrates give license to open and conduct an apothecary shop to whomever they consider competent, is wrong, and after this such licenses shall be issued by the King and only to persons who have been examined by our Collegium Medicum. The Collegium shall then put such questions to the persons called for examinations as will show their knowledge of medical simplicia and their preparations in Ga-

¹ *Pharm. Journ.*, 106, p. 386.

* Read before Section on Historical Pharmacy, New Orleans meeting, 1921. For discussion see Minutes, *JOUR. A. PH. A.*, for December, p. 966.

lenical and Spagyrical Medicament and concerning the mixing of medical remedies. They must show to the satisfaction of Collegium Medicum that they know the processes that are needed of an apothecary in his daily business and practice."

The first examination was conducted in 1692, but the questions are not in existence. Another, probably the second, took place five years later, in 1697, and I shall here give the questions and the answers to such of them as are of interest. The examination took place on the 12th of February before the whole Collegium Medicum and the examiners were Dr. Micander and Apothecary Strobel. The man examined was Gustaf Treutinger.

Question.—What are the main things an apothecary must know? Answer.—To know simplicia and to understand how to prepare them.

Q.—In how many parts are simplicia divided? A.—In three parts: Derived from the animal, vegetable and mineral kingdom.

Q.—Which are the minerals used in medicine? A.—(I give English names) Copper acetate, Copper acetate, crude; Asbestos; Alum; Antimony, crude; Silver, leaves; Arsenic, white; Arsenic, yellow; Auripigment; Gold, leaves; Bolus; Borax; White Lead; Zinc sulphate, crude; Iron oxide; Calamine; Lead oxide; Sulphur; Red Lead; Zinc oxide; Sal Ammoniacum; Rock salt; Saltpetre; Talcum; Copper sulphate; Iron sulphate; Zinc sulphate, purified; Sulphur pyrites; Mercury; Vermillion.

Q.—What is Cathecis? A.—It seems to be a dried juice.

Q.—What precious stones are used as medicine? A.—Garnet, sapphire, emerald, chalcidony and bloodstone.

Q.—What does Emerald look like? A.—Green.

Q.—What different kinds of Vermillion are there? A.—Native, crude and antimon. (The last is so named because it was obtained as a by-product in making antimonium chloride.)

Q.—What is crude Vermillion made from? A.—From mercury and sulphur.

Q.—What does Bezoar stone look like and how is it tested? A.—The best is light green or brownish green. It comes in pieces of the size of a large bean. If pure it gives a tincture with Spiritus Nitri (fuming nitric acid).

Q.—What drugs belong to the vegetable kingdom? A.—Herbs, flowers, leaves, roots, fruits, seeds, woods, barks and aromatics.

Q.—Can cloves be adulterated, and if so, how? A.—Yes, by removing the oil in them by distillation.

Q.—What is the difference between Bryonia, Jalappa and roots of the Myrobalanum species? This question was not answered.

Q.—What does Costus look like and what different kinds are there? A.—It is a bark with hair and has a sharp taste. There are three kinds, namely, Arabic, sweet and bitter.

Q.—What is the difference between *Costum amarum* and *Costum dulcis*? This question was not answered.

Q.—What is the difference between *Cassia lignea* and the genuine cinnamon? A.—Both have an aromatic taste, but genuine cinnamon comes in small round tubes, while *Cassia lignea* comes in big flakes.

Q.—What does Cinchona bark look like? A.—It is a brown, coarse, fibrous bark with an astringent taste.

Q.—What is Amara Dulcis? A.—It is bittersweet or *Solanum dulcamara*.

Q.—Which are the Herbes Emollientes and the Herbes Capillaris? A.—The Herbes Emollientes are five: Marshmallow, Violet, Mallow, Mercury Herb and Parietaria. The Herbes Capillaris are also five: Iceland Moss, Rue, Rye, Hair Cap Moss.

Q.—What is the difference between Acantha and Branca Minor? A.—None, as they are two names for the same drug.

Q.—What is Asphalathus and Asphaltum? A.—Asphalathus is a wood, while Asphaltum is a gum.

The records state that there was a lengthy discussion between Apothecary Strobel and Provisor Treutinger concerning adulteration of drugs, especially Cinnamon and Amber. Here it seems, the examination in *Materia Medica* ended. Doctor Micander then asked the candidate to tell what the following names and terms used in medicine and pharmacy signified:

Collyrium—anything that is used for the eyes.

Eubrinum—anything used in the nose.

Cucupha—a cap of linnen or silk filled with spices and drugs, used as a cephalic.

Matricum, Pelican—Distilling apparatuses of glass.

Spradrapus—Linen saturated with plaster.

Hermetici sigillare—The process to close a bottle by melting the glass.

Amalgare—Process of heating a metal or mineral so that it could be powdered.

Cohobare—Extracting one or more drugs several times with the same menstruum.

The record says that the answers were satisfactory but does not give any of them. The definitions given above are from a Pharmacopoeia then in use in Sweden.

Q.—How would you make Mercurius Albus? A.—By dissolving mercury in Aqua Fortis (nitric acid), precipitate it with sodium chloride, collect, wash and dry the precipitate.

Q.—How is Murcurius Dulcis made, and what is the test for it? A.—By sublimation. If it affects gold, it is impure.

Q.—How is Butyrum Antimonii made? A.—By distilling a mixture of chloride of mercury and antimony sulphide.

Q.—How is Mercurius Vitae made? A.—By adding water to Butyrum Antimony, wash and collect the precipitate.

Q.—How is Tartarum Vitriolatum made? A.—It is made from Oleum Tartari per deliquium (concentrated solution of potassium carbonate) by adding Spiritus Vitrioli rectificatus (purified sulphuric acid) in small quantities until it stops effervescing. Then add a little more of the Spiritus Vitrioli. At last evaporate to dryness.

Q.—How can plaster be made from Unguentum Lithargyri? A.—By boiling.

Q.—How much oil is required to make plaster from Lapis Calaminaris or Lithargyrum? A.—More or less, depending on how long I boil it. For Lithargyrum five parts of oil and less for Lapis Calaminaris is what I generally have used.

Q.—How is Emplastrum Diachylon Simplex made? A.—Boil the mucilage and the oil together, then add Lithargyrum but in small quantities.

Q.—How are gums purified with vinegar? A.—Rub the gum and vinegar in a mortar until very fine, then strain and evaporate.

Q.—What is the difference between Extractum Jalappe and Resina Jalappe? A.—Extract is made by evaporating the tincture, Resina by precipitating it with water.

Q.—How do you mix almond oil, water and spermaceti? A.—By heating them and rubbing till cold.

Q.—How can you powder camphor? A.—By rubbing almond oil on the mortar and pestle.

Q.—How is Resina Storacis prepared? A.—By boiling with water or wine, straining and evaporating.

Q.—How is Crocus Metallorum made? A.—By burning equal parts salpeter and antimony sulphide in an iron crucible.

Q.—How is Antimonium Diaphoreticum made? A.—As the last, but using three parts salpeter.

Q.—How can spiritus be made by fermentation? A.—By macerating the drug with water and yeast, and distilling of the spiritus.

This was the last question on the records. It seemed as if the Collegium Medicum was not fully satisfied with Treutinger's answers, as he received his "attestatum" (certificate) only on the condition that he for some time continue his studies in the pharmaceutical art at the drug stores in Stockholm by going over simplicia and look on these preparations, "so that Collegium may have more honor of its approbatur."

The examination was conducted in three languages, Swedish, German and Latin, and the records were kept in all three languages.