

TINCTURE IODINE.

As a substitute for tincture of iodine a 5 to 10 percent alcoholic solution of tannic acid is recommended by Schmerz in the *Pharm. Zeitung*, 1916, p. 22.

SOAP.

The scarcity of fats naturally has induced the German chemists to look for substitutes of fats in soaps. Thus the *Seifenfabrikant* recommends that soaps be prepared from saponifiable substances which can readily be obtained by the oxidation of mineral oils, for instance, by oxidizing the crude distillate of a certain fraction of coal oil with sulphuric acid and manganese peroxide by which 50 percent of saponifiable substances are obtained.

For making a soap without fat, Schneider, *Pharm. Zentralh.*, 1916, p. 130, gives the following process: 100 Gm. of soap bark are heated with 300 Gm. of water on a water-bath for a half hour and the liquid is then decanted. To this liquid 400 Gm. of kaolin and 400 Gm. of talcum powder are added and 10 drops of benzaldehyde. The stiff paste thus obtained may be used as a substitute for soap. Naturally, it does not foam but cleanses just as well as soap.

SENNA LEAVES.

Caesar and Loretz, *Geschäftsbericht*, 1915, recommend substituting senna leaves either by rhubarb or still better by buckthorn bark.

FAKE SUBSTITUTES.

Naturally, quite a number of fake preparations are put on the market. Gerber, *Pharm. Zeitung*, 1916, p. 151, published in the *Zeitsch. f. Unt. Nahr. und Genuss.*, 41 analyses about substitutes for food products. These consisted of vegetable and milk albumin, casein, disintegrating substances such as sodium bicarbonate and magnesium carbonate and artificial coloring matter.

TOELLNER'S SUBSTITUTE FOR EGGS.

Pharm. Zeitung, 1916, p. 108; this preparation occurs as a yellow powder which is colored with an artificial dyestuff. It consists of potato starch and powdered skim milk, casein and small quantities of boric acid.

SUBSTITUTE FOR SALAD OIL.

As substitutes for salad oil, vegetable mucilage colored slightly yellow and flavored with soup herbs and preserved with boric acid is offered, but is not allowed by the Government officials to be marketed (*Pharm. Zeitung*, 1916, p. 108).

QUID PRO QUO IN U. S. P. IX.*

BY OTTO RAUBENHEIMER.

Quid pro quo, frequently written in one word *quidproquo*, means in German *Das fuer was*, or in good English, "one for another," and in pharmacy it refers to the substitution or replacement of one drug for another. As pointed out in my paper, "History of Substitutes and of Substitution," regular lists of such *Quid pro quo*, were added to the old works on pharmacy and medicine.

* See foot-note under "History of Substitutes and Substitution," this issue.

That our U. S. P. IX, official from September 1, 1916, contains instances of such *Quid pro quo* and sanctions their employment, is an innovation in pharmacopoeia making of the 20th century, and it is the object of this paper to elucidate these points.

Alum, U. S. P. IX, can be either ammonium alum (which is stated first) or potassium alum, a proper statement to be given on label.

Methyl Salicylate can be either the synthetic preparation or the distillate from wintergreen or from sweet birch. The label must indicate the source.

Scopolamine Hydrobromide is also known as hyoscyne hydrobromide.

Oleum Anisi can be either from anise seed or from star anise. The botanical source from which it is derived must be stated on label.

Oleum Sinapis Volatile can be the synthetic preparation or the volatile oil of black mustard, the label to indicate the source.

Petrolatum Liquidum can be heavy or light and can be American or Russian.

Caffeine can be obtained from tea leaves, coffee beans, other plants, or can be prepared synthetically.

Theophylline from tea or synthetically.

Hydrastine from hydrastis or synthetically.

Codeine from opium or by methylation of morphine.

Saccharum from sugar cane, sugar beets or other sources.

The vegetable materia medica of the U. S. P. IX abounds in *Quid pro quo*. In numerable instances the pharmacopoeial drug can be derived from "some other species," as, for example, Cinchona and Rheum. Many drugs can be either one of several species, which species are fully described in U. S. P. IX, for instance:

Benzoin.....	Siam or Sumatra
Buchu.....	short or long
Glycyrrhiza.....	Spanish or Russian
Senna.....	Alexandria or India
Serpentaria.....	Virginia or Texas
Xanthoxylon.....	Northern or Southern
Sarsaparilla.....	Mexican, Honduras or Jamaica
Ginger.....	Jamaica, African, Calcutta, Calicut, Cochin or Japanese

The *Quid pro quo* have also taken possession of some galenic preparations, a matter of great importance to the pharmacists.

Upon a careful perusal of the U. S. P. IX I also find the following Notes added to the monographs: *Liquor Cresolis Compositus*.—Note: In this process the 80 Gm. of potassium hydroxide may be replaced by 54 Gm. of sodium hydroxide.

Liquor Magnesii Citratis.—Note: In this process the 2.5 Gm. of potassium bicarbonate may be replaced by 2.1 Gm. of sodium bicarbonate, preferably in tablet form.

Pilulae Ferri Carbonatis.—Note: In this process the 8 Gm. of potassium carbonate may be replaced by 7.2 Gm. of monohydrated sodium carbonate.

These are the principal *Quid pro quo* in the U. S. P. IX. Now the answer as to why was such substitution authorized? For the very same reason as in the times of old Egypt, Greece, Rome and Europe, namely, because certain drugs and medicines became scarce and very expensive and even unobtainable. Blame it all on the war, is the slogan at present! Justly so, because Europe, and quite especially

Germany, has been supplying the United States with drugs and chemicals, and this supply has now been cut off. The Stassfurt mines in Germany no longer furnish the crude material to American manufacturers of potassium salts. The consequent scarcity and extremely high price of the latter were the reason that the Revision Committee authorized the *alternative use of an equivalent amount* of sodium salts by the addition of a Note to the Formula of the following:

Liq. Magnes. Citrat.	2.1 Gm. NaHCO ₃	to replace 2.5 Gm. KHCO ₃
Pil. Ferri Carbon.	7.2 Gm. Na ₂ CO ₃ H ₂ O	to replace 8 Gm. K ₂ CO ₃
Liquor Cresolis Co.	54 Gm. NaOH	to replace 80 Gm. KOH

Although the action of the Revision Committee has been criticized as "hysterical" and "approving substitution," the writer is firmly convinced that it was a timely step in the right direction and of material benefit to the entire drug trade. In a paper "Sodium Bicarbonate for Citrate of Magnesia," published in *The Practical Druggist*, June 1916, p. 22, I have gone into full details regarding that particular subject.

DEPARTMENT OF PHARMACY,
COLLEGE OF JERSEY CITY, N. J.

ROCKEFELLER FOUNDATION BUILDING PROJECT IN PEKING.

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An announcement has just been made by the representative of the Rockefeller Foundation in this city with regard to an extensive building program that institution has in prospect. Some time ago the foundation took over the previously established Union Medical College of Peking and the hospital operated in connection with it. It is now proposed to build a complete new plant for these institutions, the plans calling for buildings for the college to accommodate a maximum of 50 students and for the hospital to provide for a present maximum of 200 beds, with possibilities of later expansion. The hospital is intended primarily to provide clinical facilities for the college, and it is expected to be patronized mainly by the poorer classes.

The expenditure that this project will involve is not officially stated, but it is understood that it may run over \$1,000,000. The announcement is not only of interest in connection with the great benefit that will accrue to the cause of medical education in China, and with the increase that will result in American prestige in this part of the country, but from a more strictly commercial point of view because of the expenditure that will ultimately be necessary for materials and supplies.

So far the place has only been looked over by an architect. The appointment of regular architects will follow shortly.
