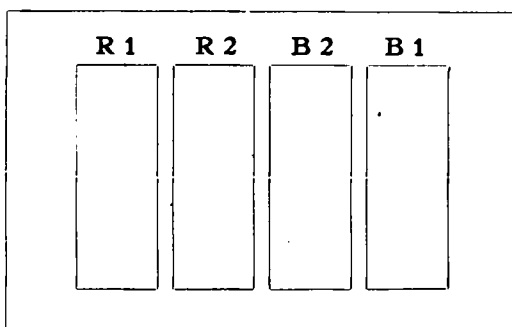


R 2, which had become bluish in the urine, regains its reddish tint by drying, then the alkalinity of the urine is due to ammonium carbonate. (This means that the bladder is infected.)

If R 2 becomes frankly blue, the urine is said to be sharply alkaline. If R 2 becomes but faintly bluish, the urine is said to be slightly alkaline. Similarly, when B 2 becomes frankly red or faintly reddish, the urine is said to be respec-



tively, sharply acid or faintly acid. It is my experience that in health the most common reaction for the mixed urine for twenty-four hours is the amphoteric reaction and not the acid reaction, as is customarily stated.

NOTES.—R 2 and B 2 are apt to fade slightly where immersed in the urine, due to solubility of the coloring matter, but no importance is to be attached to this change. The hands, if not washed carefully, are apt to have some unsuspected power to change the color of litmus paper.

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## REPORT OF THE COMMITTEE ON THE U. S. PHARMACOPOEIA.

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L. D. HAVENHILL, CHAIRMAN.

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The work of the committee this year has been very much handicapped. It has suffered the loss of both of its efficient officers, Chairman George M. Beringer resigned, and Secretary C. S. M. Hallberg, by death. Because of subsequent misunderstanding, the committee was not reorganized until late this spring. The short time then remaining and the fact that five of the members are actively at work in the Pharmacopoeial Committee of Revision and two in the Committee on the National Formulary, made it inadvisable to attempt concerted action along any line of investigation. The report, for these reasons, will necessarily be brief and confined to a few miscellaneous topics.

*Aquae.* Considerable complaint is heard concerning the use of Purified Talc as a distributing agent in the preparation of the aromatic waters. Mr. Mittelbach says, in this connection: "I do not like Talcum or Magnesium Carbonate or any

of the distributing methods for the preparation of the official waters. One is nearly as bad as the other. I believe if all the official waters were made by distillation, we would have ideal ones. I believe that this would add much to their keeping properties. If stronger Rose and Orange Flower Waters keep so well, the others will also." The chairman endorses the above; distributing powders are not satisfactory; the ideal product would be one made by distillation. He believes, however, that distillation is a little too tedious to appeal to the majority of pharmacists and has, therefore, been advocating for several years the making of the waters from the respective oils by solution in hot water. The process requires but little attention from the pharmacist, the product is practically sterilized, saturation is secured, and traces of empyreumatic substances are volatilized. Its only weakness lies with the quality of the oil. This process is recommended in the British Pharmaceutical Codex in preference to the distribution method. The chairman's experience with the imported (so-called) rose water has not been satisfactory. He has not found it superior in any respect to that made from a high-grade oil of rose by the hot process. The Rose Water of the German Pharmacopoeia is prepared by dissolving the oil of rose in hot water.

*Aspidium.* Much of the male fern of the market does not conform to the U. S. P. description. It is very largely composed of "fingers" which, it is understood, are the peeled stipe bases. It would be very desirable to ascertain if these are equally active with the rhizome and if so to include them in the official description. It may be that much of the complaint that we hear concerning the inactivity of the oleo-resin of male fern may be traced to this source, instead of to the use of rhizomes which have not retained their internal green color. If so, these "fingers" should be specifically excluded.

*Benzoinum.* The question is raised concerning the amount of Siam Benzoin that is used in medicine. Its price, when compared with the Sumatra Benzoin, is very much against its ever being used as a substitute for the latter. If retained it ought to be specially described, as good samples are almost wholly soluble in alcohol. Sumatra Benzoin is nowhere near soluble in alcohol if the accompanying sticks and pieces of bark are to be considered as a part of the sample. This inert material often exceeds 40% and it is obvious that the U. S. P. must place some limit on it or else introduce a purified benzoin. A very good looking sample will often contain 20% of this material and it is believed that a limit of 20% for wood and bark would be liberal. The limit of ash should not be increased beyond the present limit of 2%.

*Cera Flava.* Considerable of the domestic bees' wax is produced in apiaries in all of which it is the custom to use "starters," "foundation" or "guide combs." Bee men claim that the wax produced from such combs will not comply with the U. S. P. requirements. If it can be shown that the starters can not be made from pure wax, then the desirability of lowering the standard for bees' wax should be considered.

*Extractum Rhamni Purshianae.* The chairman has not succeeded in reducing this extract to a pulverizable condition on a water-bath at a temperature of 70° C.

He has also found several samples in which the percentage of dry extract was greater than 25%.

*Oleum Lini.* Several states have adopted the U. S. P. standards for Linseed Oil in their paint and oil laws. This is, to a certain extent, unfortunate, unless the U. S. P. oil is none too good for commercial purposes. If the U. S. P. standards are to serve commercial purposes, they should be elaborated. A bland taste does not seem to characterize the taste of linseed oil. We have tasted of many samples which had a decidedly bitter taste. Should they be condemned on the taste? The length of time, the temperature, the circulation of air, and other conditions, greatly influence the rate of "drying." These should be definitely stated in the resinification test. An acid number would be desirable to limit free acid. Our understanding is that a linseed oil of high grade may contain as much as 1.5% of unsaponifiable matter; if this is correct, the statement that it is completely saponifiable, etc., should be modified. Glacial Acetic acid has not given satisfaction in the rosin oil test. The originators of this test used acetic anhydride and it, instead of glacial acetic acid, should be used when making this test.

The Association of Official Agricultural Chemists is advocating the substitution of the Hanus method for the Hübl method for determining the iodine numbers. Their reasons should be considered with respect to a similar substitution in the U. S. P. A chemical test for the detection of fish oils is very much needed.

*Oleum Terebinthinae.* This is another substance for which the official tests are made the basis of commercial valuation. The tests for the presence of rosin spirit needs strengthening and a test for coal tar oils would be welcomed.

*Pulvis Aromaticus.* The chairman has submitted this formula to a number of pharmacists and finds that it is not clear as to whether it calls for 15 gm. of Cardamom or 15 gm. of Cardamom seeds. The same lack of clearness is found in the formula for Extract of Colocynth, though in this case it is immaterial whether the seeds are removed before or after weighing.

*Pulvis Effervescens Compositus.* In preparing these powders it is all right to dry the Tartaric Acid and the Sodium Bicarbonate, but when it comes to drying the Potassium and Sodium Tartrate, which contains about 25% of water of crystallization, one might question whether drying is synonymous with exsiccation. The question again comes up whether the drying is to be done before or after the weighing. This is an important matter when it comes to question of deciding the standard weight of the contents of the blue paper.

*Sulphur.* It seems highly improbable that a sublimed sulphur which contains 0.5% of non-volatile matter will yield a washed sulphur which will contain not more than 0.2% of non-volatile matter. The chairman attempted to verify this experimentally and up to date has examined 11 samples. He has not found one which contained as much as 0.5% of non-volatile matter. The range has been from 0.006% to 0.1%. This is less than that allowed in washed sulphur and the conclusion is reached that the allowance in the latter article is liberal enough and that there is little if any necessity for a difference in this requirement in the two.

articles. On the other hand, he has never examined a sample of Precipitated Sulphur which was free from non-volatile matter. It does not seem reasonable that there should be such a sample. It is suggested that a maximum limit of 0.3% be allowed in each, Washed, Sublimed and Precipitated Sulphur. Among the samples of Sublimed Sulphur examined there was a noticeable difference in the colors. Some were very pale yellow and looked more like pulverized than like sublimed sulphur. These pale yellow samples were not free burning and appeared to be impure, though they did not contain more than a few one-hundredths of one per cent. of non-volatile matter. The statement is made in the Pharmacopoeia that Sublimed Sulphur is readily soluble in Carbon Disulphide. It is believed that this statement should be modified. Most text-books state that it is only partially soluble in Carbon Disulphide and that the amount of insoluble sulphur may amount to as much as 6%. We have examined several samples and find that content of insoluble sulphur is usually about 4.5%. If the Purity Rubric is to remain an assay method ought to be supplied.

This committee, in its report last year, presented a list of general principles bearing on the IX rev. of the U. S. Pharmacopoeia. Supplementing these, we would like to suggest concerning No. 16, which relates to the fineness of powders, that there be a minimum requirement to the effect that not more than 25% of the powder of a given fineness should pass through a sieve having 10 meshes more to the lineal inch. The diameter of the wire should be stated in millimeters rather than by gauge, as different gauges are used for brass and iron wire, respectively.

Concerning No. 18, which relates to synonyms, this year's chairman feels prompted to dissent. He sees no reason why synonyms should be perpetuated by publishing them in the Pharmacopoeia.

Concerning No. 23, he agrees that structural formulas would be out of place in the U. S. P., but he would not like to have this so interpreted as to eliminate the constitutional formulas now used. Empirical formulas for organic chemicals are of but little value.

The pharmacist is frequently called upon to prepare saturated solutions. The solubility figures of the U. S. P. are not suitable for this purpose, since the resulting solution will, in the majority of cases, be supersaturated. The former figures at 15° C. were of more value for this purpose.

We believe that the question of percentage solutions should be decided by the Pharmacopoeial Committee of Revision. Physicians are not agreed on this subject, and the pharmacists would be glad to have some authoritative statement to guide them.

A neglected function of this committee is to collect statistics regarding the frequency with which official and semi-official remedies are used in legitimate practice. In this connection the chairman desires to call attention to the fact that our late lamented member, Professor Hallberg, began in June, 1908, to collect statistics on one million prescriptions under the direction of the Board of Trustees of the U. S. Pharmacopoeial Convention. Professor Hallberg succeeded in collecting the data from 117,000 prescriptions, and the report was

placed in the hands of the Pharmacopoeial Committee on Revision in Circular 100, January 14, 1911.

The report embraces 122 collections of nearly 1000 prescriptions each, and represents 57 cities and 28 states. It is most elaborate and full of valuable information. It is interesting to note in the summary that the 15 most frequently prescribed drugs per thousand prescriptions are the following:

1. Nux Vomica and Strychnine.....	67
2. Opium, Morphine and Codeine.....	64
3. Digestive Ferments and Pepsin.....	56
4. Quinine and Salts.....	40
5. Calomel .....	36
6. Sodium Bicarbonate.....	30
7. Phenyl Salicylate (Salol).....	29
8. Phenacetin .....	23
9. Bismuth Subnitrate.....	22
10. Cascara Sagrada.....	22
11. Potassium Iodide.....	19
12. Sodium Salicylate.....	19
13. Caffeine .....	17
14. Arsenic .....	16
15. Acetanilid .....	12.5

According to this summary, Morphine is less often prescribed than either Arsenic, Acetanilid or Caffeine. It is probable, however, that this showing is occasioned by a relatively less amount of the morphine administered being recorded in prescriptions.

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#### THE MAN WILLING TO PAY.

But to the man who refuses to be a galley slave, who feels the hot blood surging through his veins, who has ambitions, who wants to grow and develop, mentally, morally and physically, who yearns for the things that money can't buy—friendship and love, and the laughter of children, who realizes that we are passing through this life but once, and should give and take all the happiness and pleasure we can—that he should live, fully and joyously, as we go along, even though it does cost a few dollars each year—to such a man, the man who is willing “to pay the price,” life has a meaning all its very own, a meaning which is Stygian darkness to the man whose God is money, money, money, whose thought is work, work, work, and whose life, in its final analysis, is a sickening, saddening and lonely failure, whether he be poor or whether he be rolling in the wealth of a Croesus.—*J. W. England.*