PHARMACEUTICAL ABSTRACTS

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ABSTRACTORS

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PHARMACEUTICAL EDUCATION

Biology for Pharmaceutical Students. A discourse on the vocational use and foundations of a training in biology for pharmaceutical students.—F. J. DYER. *Pharm. J.*, 135 (1935), 185. (W. B. B.)

Pharmacist—Education of the. The reform in the education of the pharmacist in Hungary has not only been along pharmaceutical lines but also along cultural, sanitary and other lines. The author has compiled the requirements of 28 countries. In 20 of the 28, the education of the pharmacist begins with a university course, which method seems more reasonable than the systems in which apprenticeship in a pharmacy is the first step. Of the countries studied, 9 require 6 semesters of school work, 11 require 8, 4 require 9 or 10, 1 requires 5, and only 3 require 4 semesters. In 8 countries the pharmaceutical faculties are of university standing, and in 4 they are of high school standing. The second table shows the individual subjects along with the required number of credit hours for 17 countries. The third table shows the subjects and the number of credit hours required in the course in pharmacy in Hungary. The pharmacist should be equipped along several lines so that he may be of service to practicing physicians, and in small towns he must also be acquainted with farming necessities of a chemical nature such as fertilizers and the like.—S. MOZSONYI. *J. Hungarian Pharm. Assoc.;* through *Pharm. Presse*, 40 (1935), 309. (M. F. W. D.)

PHARMACEUTICAL LEGISLATION

Drug Code—Brief History of. This history is traced from the authorization of a Committee on the Retail Drug Code by the National Association of Retail Druggists, following the enactment of the National Industrial Recovery Act down to time of the decision of the Supreme Court in the Schecter case. At the final meeting of the National Code Authority, June 8, 1935, it was decided to place all records in the keeping of the secretary for one year and then to turn them over to the AMERICAN INSTITUTE OF PHARMACY for such historical use as can be made of them.—E. F. KELLY. *J. Am. Pharm. Assoc.*, 24 (1935), 767. (Z. M. C.)

Pharmacopœia of the United States and the Federal Food and Drugs Act. Attention is directed to the primary purpose of a pharmacopœia and the origin and method of revision of the U. S. P. is discussed. Reasons why the Pharmacopœia should not be deleted from the Federal Food and Drugs Act are explained. What is meant by a "variation clause" is explained and the question whether reference to the U. S. P. in the Federal Food and Drugs Act may be coupled with the variation clause is discussed at some length. That the variation clause is necessary to permit improvement in pharmaceutical substances is explained and also the relation of this clause to the delegation of legislative power. In many cases titles employed to designate U. S. P. substances are taken from the English Language and such names cannot be copyrighted. The primary purpose of a food and drugs act is to prevent fraud. The author summarized his arguments as justifying the following conclusions: "1. That a Federal Food and Drugs Act as represented by the Copeland Bill, applies exclusively to foods and drugs while they are within the domain of interstate commerce. By the use of no language can the Federal law be made to apply to commerce after it has lost its interstate character. After once mingling with the goods of a particular state, only the laws of such state can fix the qualities which drugs must possess in order to permit their lawful distribution therein. 2. That the definitions for drugs, and for adulterated and misbranded drugs as found in the Copeland Bill are such that without the addition of a proper variation clause, only such drugs as compiled with U. S. P. standards of strength, quality and purity could be lawfully transported in interstate commerce, a condition which if it prevailed would prevent the shipment of hundreds of thousands of tons of drugs and chemicals commonly used in the arts and industries. 3. That each new revision of the U. S. P. presents numerous changes in the standards of strength, quality and purity of the drugs described in its monographs, and also introduces new drugs and preparations which were not commonly used or even known when the preceding volume was issued. If the law-making body confers upon the revisers of the Pharmacopœia blanket authority to change the legal obligations of the citizen so as to render him liable to fine and imprisonment for acts which would have been innocent in law if the Pharmacopœia had not been revised, it would seem fairly evident that there has been an attempted delegation of law-making power. On the other hand, if the law permits the use of U. S. P. titles which are parts of common English speech, upon articles not of U. S. P. standards, upon

condition merely that the label states the fact of such variation, then no new obligation is forced upon the producer when a new Pharmacopœia becomes official. Under any revision of the Pharmacopœia his legal liability remains the same; he will always have the option either of observing U. S. P. standards or of stating upon the labels wherein his product differs from such standards. 4. That it is the common understanding among physicians and pharmacists and taught in all colleges of pharmacy, that the use of a U. S. P. title without the addition of qualifying adjectives or other explanatory words, implies that the product to which it is attached complies with U. S. P. standards of strength, quality and purity. Unless this be the rule, the primary purpose of the Pharmacopœia—to enforce uniformity in properties and potency—would be defeated. 5. That a proper variation clause is one which would require that when a U. S. P. title is attached to a drug of other than U. S. P. standards the qualifying words shall indicate clearly that the drug does not profess to comply with such official standards. The wording of the label should not be obscure or ambiguous, but such as to enable the reader to form an intelligent opinion as to the character of the product. 6. And finally, that the deletion of the variation clause from the Federal Food and Drugs Act would not close interstate commerce to the shipment of medicinal preparations of official drugs which did not comply with U. S. P. standards. The producer would need only to give his product some attractive coined name and ship it as a proprietary specialty, thus setting his own standards, without let or hinderance from any authority."—J. H. BEAL. *J. Am. Pharm. Assoc.*, 24 (1935), 759. (Z. M. C.)

Pharmacy in Denmark. A discussion of the changes taking place in pharmacy administration in Denmark.—W. MAIR. *Pharm. J.*, 135 (1935), 254. (W. B. B.)

Vitamin and Organotherapeutic Preparations, Standardized. The Question of Their Unrestricted Commerce in the Wholesale Pharmaceutical Trade. A lecture before the Nordiska Apothecaries and Pharmaceutical Meeting of 1935 in Stockholm, discussing state regulation and control, especially of vitamin preparations and gland preparations. Thyroid gland is not considered satisfactorily controlled by chemical means and the biological method of Krogh and Lindberg is recommended. It is noted, however, that the biological methods are still in dispute and that probably the chemical method approved by the Permanent Standards Commission of the League of nations will remain more convenient to use. Vitamin A and D concentrates such as halibut liver oil, Calciferol, B vitamin preparations such as rice polishings extracts, yeast extracts and liver extracts are cited as examples of preparations needing biological control. The problem of cost to the state is considered.—J. K. GALDBAEK. *Arch. Pharm. og Chemi*, 42 (1935), 427, 441. (C. S. L.)

MISCELLANEOUS

Pharmacist and the Podiatrist. The opportunities for pharmaceutical work in supplying the podiatrist or chiropodist are hardly touched. A considerable number of substances and formulas are listed. The classification indicates the scope: Dusting powders; emollients; massage preparations; karyolytics—preparations for softening of abnormal growths; esharotics; preparations used in the treatment of ring-worm infections, hyperhidrosis and bromidrosis; skin stimulants.—W. F. AMBROZ. *J. Am. Pharm. Assoc.*, 24 (1935), 774. (Z. M. C.)

Professional Pharmacy and Chemical-Pharmaceutical Industry in the Soviet Union—State of. Impressions from a Tour. A detailed account of the impressions gained by a Swedish apothecary on a tour in the Soviet Union studying the organization of the professional apothecaries, service and the state of the chemical and pharmaceutical industry. Both the public apothecaries and the hospital dispensaries are considered, also the schools of pharmacy, especially the Moscow Institute or College. There are in the Union 126 schools awarding the assistant's certificate and three "high schools" or colleges of higher study. The Moscow Institute trains both apothecaries' assistants and physicians' assistants. The three-year pharmacy course is open to students over 16 and under 35 years of age who have had at least seven years of lower school. After passing the assistant's examination three years of practice in an apothecary shop are required before the candidate may enter higher studies. At least two years of study for the higher degree are necessary. The subjects of curriculum are cited. The Moscow Institute has about 150 teachers and 1400 students. Descriptions of visits to Russian pharmaceutical, industrial works are also of interest. At one works digitalis and adonis glucoside extraction, manufacture of chloroform, and synthesis of plasmochin, bromvalerylurea, diethylmalonylurea, sajodin, phenylcinchonic acid

and other drugs were observed and also the manufacture of photographic chemicals was seen. At a manufacturing pharmacy works, various organic and inorganic drug preparations were seen in manufacture. At this works 300–400 different varieties were made. The staff here numbered about 1000 workers. Large and well-equipped control and experimental laboratories were attached. The working men's recreation house is described, with dining hall, amateur theater, library of 6000 volumes, school rooms including a chemical laboratory, etc. A factory making bandage and other first-aid equipment was also visited. The State Chemical-Pharmaceutical Research Institute in Moscow is also described. Here about 120 academically trained scientific workers, many with one or two assistants, were found engaged in research. In one division twenty physicians were employed in therapeutic research. Among the various fields of research one laboratory was set aside for alkaloid research, another for research on analysis of organic compounds, others for inorganic and for electrolytic analytical research. A rare earth research laboratory was noted. Sufficiently large scale apparatus was available so that new chemical compounds might be prepared in quantities sufficient for clinical testing when that stage was attained. New pyridine and acridine preparations were seen in preparation. The latter was an agent for treatment of malaria, called "Akrikrin." The pharmacological division of the Research Institute with its animal house, etc., was also inspected.—T. WIKANDER. *Farm. Revy*, 34 (1935), 477, 489, 501, 513, 526, 542. (C. S. L.)

PHARMACOLOGY, TOXICOLOGY AND THERAPEUTICS

PHARMACOLOGY

Alcohol Injected Intravenously. Effect of Habituation on Rate of Metabolism. A daily intake of from 5 to 7 cc. of alcohol per Kg. for a period of three months does not result in an increased rate of alcohol metabolism in the dog. Since it has been shown by others that absorption of alcohol is increased rather than decreased by habituation, we are left with the factor of increased tissue resistance to explain acquired tolerance to alcohol, if such exists in fact. Direct evidence that such tolerance exists is wanting.—HENRY W. NEWMAN and WINDSOR C. CUTTING. *J. Pharmacol.*, 55 (1935), 88. (H. B. H.)

Alkaloids of Fumaraceous Plants—Pharmacological Action of. II. Corydine. The effects of corydine on intact animals, animals arranged for recording blood pressure, the isolated uterus and the isolated heart have been studied. In the intact animals an initial stage of drowsiness followed by drowsiness alternating with fibrillary twitchings in isolated muscles was demonstrated. In larger doses the animal developed strychnine-like convulsions which involved the muscles of respiration resulting in death due to asphyxia. Injected intravenously in rabbits corydine produced an initial fall in blood pressure followed by a return to normal or above normal. Added to a bath containing the excised uterus, corydine produced increased tone and height of contraction. The perfused frog's heart showed increased tone and considerable slowing.—R. A. WAUD. *J. Pharmacol.*, 55 (1935), 40. (H. B. H.)

Amytal and Amidopyrine—Effect of, on Blood Picture of the Albino Rat after a Deficient Diet. The white blood count of rats, weakened by a deficient diet, may be reduced approximately 50% by oral administration of amytal and amidopyrine. Granulocytes do not disappear from the blood stream.—ERMA SMITH and L. MACK. *Proc. Soc. Exptl. Biol. Med.*, 32 (1935), 1623. (A. E. M.)

Arsenicals, K.324 and K.352—Trypanocidal Action of, on Infections in Mice and Rabbits. A comparison of the trypanocidal action of K.324 (I, p-NH_2-$CO.C_6H_4$.As $(SCH_2.CH(NH_2)COOH)_2$), K.352 (II, 2-(diglutathionylarsyl)-5-acetamido-phenol) and sodium N-carbamylmethylarsanilate (III, tryparsamide). The maximum tolerated dose by a single slow intravenous injection of an approximate neutral solution was 0.075, 0.2 and 3–3.5 mg./g. of mouse. Trypanosome infections in mice varied somewhat in the ease with which they could be cured. The order of increasing difficulty of cure was *T. brucei*, *T. rhodesiense* and *T. equiperdum*. The therapeutic index (minimum curative dose/maximum tolerated dose) for the respective trypanosomes was with I 1/10, 1/7.5 and 1/3.75; with II 1/20, 1/20 and 1/10. Doses of 0.01 mg./g. or more of I or II and of 0.75 mg./g. of III cleared the peripheral blood of *T. gambiense* infections for long periods. Relapses were common after treatment with 0.005 mg./g. of I or II. Negative findings in the peripheral blood did not necessarily indicate freedom from *T. gambiense* infection.

Trypanosomes may be present in the brain circulation without untoward signs of infection. No curative value of I or II for *T. conglolense* infections in mice was apparent. It was found that a total dose of 0.03 g./Kg. of I in 3 injections, 0.04 g./Kg. of II in 4 injections and 0.75 g./Kg. of III in 3 injections would effect permanent cures of rabbits infected with *T. rhodesiense*. Thus, only 2–3% as much as in the form of I or II is required as in III. Permanent cures in rabbits were produced, though less effectively, by single intravenous injection of 0.015–0.02 I/Kg. or 0.02–0.04 g. II/Kg.—WINIFRED I. STRANGEWAYS. *Ann. Trop. Med.*, 29 (1935), 231; through *Squibb Abstract Bull.*, 8 (1935), A-1360.

Dialkylaminoethoxyethyl-*p*-aminobenzoates—Local Anesthetic Action of. Dialkylamino ethoxyethyl-*p*-aminobenzoates of the general formula $p\text{-}H_2NC_6H_4COOCH_2CH_2OCH_2CH_2NR_2$ where R was methyl, ethyl, *n*-propyl and *n*-butyl radicals were prepared and their toxicity, intracutaneous and surface anesthesia and irritation were determined. The dimethyl derivative did not cause topical anesthesia. Toxicity and anesthetic action increased as R increased. They showed no irritation. Their preparation and physical properties are given.—LEONE A. RUBERG and R. L. SHRINER. *J. Am. Chem. Soc.*, 57 (1935), 1581. (E. B. S.)

Digitalis, Strophanthus and Squill—Use of Rabbits in Assay of. Study has been made of the value of rabbits for the assay of strophanthus, digitalis and squill. The rabbit is less sensitive than the cat to ouabain, strophanthus or squill, but more sensitive than the dog or guinea pig to the two former. To digitalis it is the most resistant of these four species. The advantages of the use of rabbits lie in the short duration of each experiment, and the ease with which a stock of animals can be obtained: the disadvantage is the fact that to attain the same degree of accuracy more animals must be used on each test. Where comparison has been made results obtained on rabbits agree with those obtained with the use of cats.—G. N. RAPSON and S. W. F. UNDERHILL. *Pharm. J.*, 135 (1935), 797. (W. B. B.)

Diphenyl Compounds—Therapeutic Substances Derived from Unsymmetrical. III. Some Aryl Esters of the Hydroxy Diphenyls. A number of aryl esters of 2-, 3- and 4-hydroxy-diphenyls and some of their substitution products were prepared. The hydroxy diphenyls (*o*-, *m*- and *p*-phenyl-phenol) are active, non-toxic germicides and it was hoped that by oral administration in the form of ester they might reach the urine unmetabolized and there exert germicidal action. Fifteen esters were made and tested. Experimentation on animals showed that they have no value as urinary antiseptics. Rabbits were used. The compounds with their crystallizing media, their melting points and analyses are listed.—S. E. HARRIS and W. G. CHRISTIANSEN. *J. Am. Pharm. Assoc.*, 24 (1935), 553. (Z. M. C.)

Epithelial Anesthesia. Experiments on humans affected with solar burns indicated that of the various alkyl para-aminobenzoates the ethyl derivative (benzocaine) when administered in oil failed to produce sufficient anesthesia to allay the pain; the propyl and butyl derivatives showed very little difference in their action and afforded the patient practically complete relief; the amyl derivative was not studied since with an increase in the molecular weight of the alkyl radicle there is increased difficulty and expense in manufacture and increased potential epithelial irritation. Evidence indicates that the greater the solubility of the derivative in the oil, the greater the action on the epidermal tissue; the greater the solubility in water the greater the action on the intact mucous membrane. An anesthetic of the quinoline group induced action more rapidly but after $^1/_2$ hour no difference could be determined from that produced by the propyl derivative. Substitutions or additions in the amine or alkyl radicle result in a diminution of the action.—L. STAMBOVSKY. *Drug and Cosmetic Ind.*, 37 (1935), 175–176, 192. (H. M. B.)

Ergometrine—Concerning Some Pharmacological Effects of. Crystalline ergometrine was tested on a dog using the method utilizing the power of the ergot alkaloids for paralyzing the adrenaline-sensitive renal vasoconstrictors. It was shown to act similarly to the other ergot alkaloids but required a greater quantity than ergotoxine or ergotamine to produce the same action which, however, was more lasting.—RAYMOND-HAMET. *Compt. rend.*, 201 (1935), 176. (G. W. H.)

Ether—Studies on Dosage of, after Pre-anesthetic Medication with Narcotics (Barbiturates, Magnesium Sulphate and Morphine). Dogs were used as experimental subjects, and ether administered both by the open mask method and by the use of the Forreger apparatus. Determinations were made as to the blood-ether concentration during the stage of surgical anesthesia and stoppage of respiration when ether was administered in combination with various

hypnotics. The margin of safety in ether anesthesia is neither increased nor decreased by preliminary medication with sedative doses of morphine or the barbiturates mentioned. It is lessened with magnesium sulphate. The advantage of giving morphine or the barbiturates lies in the mental and physical relaxation they produce.—FRANK A. CALDERONE. *J. Pharmacol.*, 55 (1935), 24. (H. B. H.)

Liver and Stomach Preparations—Assay of. The assay is based on decrease in erythrocytes under the influence of phenylhydrazine-anemia. Animals of equal weight are fed the same diet and the number of erythrocytes in the blood determined. Two or three days later, all animals receive a subcutaneous injection of 16 mg. phenylhydrazine hydrochloric acid (1% aq. solution) per Kg. and thereupon also a subcutaneous or oral dose of the antianemic substances, 1–2 animals serving as controls. The antianemic principle is given only once, each animal receiving a different dose or every 2 animals the same dose. The decrease in the erythrocyte number reaches its maximum in 48–72 hrs. after injection in the controls; while in the animals treated with liver or stomach preparations the maximum appears 96–120 hours after injection, *i. e.*, about 48 hours after the control maximum. Assaying and comparing of active preparations are made on this basis.—JOSEPH ERDOS. *Biochem. Z.*, 277 (1935), 342; through *Squibb Abstract Bull.*, 8 (1935), A-806.

Male Sex Hormones—Biological Evaluation of the. A review.—J. W. JUNG. *Apoth. Ztg.*, 50 (1935), 525–526. (H. M. B.)

Pentobarbital, Chloral Hydrate and Avertin—Relative Efficacy of a Series of Analeptics as Antidotes to Sublethal and Lethal Doses of. The antidotal efficiency of artificial respiration, of an atmosphere of 10% carbon dioxide, and medication with picrotoxin, metrazol "coramine," caffeine, cocaine, strychnine, sodium 2,4-dinitrophenol, "icoral," nicotine and combinations of ephedrine and the more effective of the agents was noted upon adult albino rabbits to which had been given either pentobarbital, chloral hydrate or avertin. Sixteen hundred experiments were performed from which the following conclusions were drawn. All procedures tested were found to have more or less symptomatic value in antidoting temporarily the depressant effects of the hypnotics. The degree and duration of action of each analeptic was inverse to the depth of hypnosis and with few exceptions, the order of antidotal efficiency of the series of agents or procedures was the same for each of the hypnotics. The order of practical usefulness of the several therapeutic measures, judged by the degree of improvement in respiration, circulation and reflex excitability, degree of shortening of the usual stages of recovery and the margin of safety of effective dosages of each agent, from high to low is as follows: picrotoxin, metrazol, ephedrine, artificial respiration, "coramine," "icoral," strychnine and caffeine sodio-benzoate. Large to lethal doses of each of the hypnotics produce significant depressive effects on respiration and the circulation. The most satisfactory therapeutic measures, therefore, included combined medication with ephedrine and either picrotoxin, metrazol or "coramine." Tolerance to these preparations parallels the degree of depression present, particularly with the convulsants. The dosage and frequency of administration of the antagonists must be gaged by the duration of the optimal response observed and the relative need for supportive treatment. Artificial respiration especially with gas mixtures containing 5 to 10% of carbon dioxide, is highly effective as a single resuscitation measure against lethal doses of these hypnotics. This procedure because of its safety and high degree of effectiveness after paralysis of the respiratory center is considered to be of outstanding usefulness either alone or in conjunction with other analeptic measures. Ephedrine is particularly effective in modifying the effects of sedative to moderately toxic doses of "avertin" or chloral hydrate primarily because of the circulatory depressant effects of these hypnotics. However, large doses of ephedrine should be used with caution in "avertin" or chloral poisoning in that an added depression may occur. This alkaloid on intravenous administration tends to produce cardiac irregularities and occasionally pulmonary edema. Caffeine in dosages far exceeding those used clinically, moderately improved the respiration of animals depressed by these hypnotics. Excessive doses of this alkaloid produced in addition to the initial stimulant action, a secondary depression which was additive with that of the hypnotics. Artificial respiration is definitely superior to caffeine as a therapeutic measured in antidoting single 100% lethal doses of pentobarbital.—O. W. BARLOW. *J. Pharmacol.*, 55 (1935), 1. (H. B. H.)

Pharmaceutical Research—Application of Statistical Methods to. IV. Methods of Recording Drug Action. Interpretation of minimum effective dose (MED), minimum tolerated dose (MTD) or minimum lethal dose (MLD), absolute lethal dose (ALD) or certain lethal

dose (CLD) is discussed. Different interpretations make it impossible to compare results of different investigators. Variability expressed in terms of a "standard curve" proved a good thing. Trevan proposed the "LD_{50}" dose as a basis of measurement, that is, a dose affecting half the test animals. The present paper reports on aconitine, picrotoxin, morphine and strychnine. Tabulations of dosage as well as graphs are shown. "By using a subscript before the statement of effect to indicate the number of animals employed and another after it to indicate the degree of response used as a criterion ($_nED_{\%}$), drug action may be quantitatively recorded with maximum convenience and minimum labor."—J. C. MUNCH and F. E. GARLOUGH. *J. Am. Pharm. Assoc.*, 24 (1935), 619. (Z. M. C.)

Progestin, Crystalline—Inhibition of Uterine Motility with, in Vivo. In experiments with rabbits with uterine fistulas to allow tractions, A. and R. found that impure corpus luteum extracts containing progestin completely inhibited uterine motility in 1 hr. after injection of 1.2 rabbit units, in 2 hrs. with 0.6 units and 4 hrs. with 0.3 units. With the pure prismatic form of the hormone, inhibition occurred in 3.75 hrs. with 0.2 rabbit unit (0.26 mg.) and in 2.5 hrs. with 0.4 unit. Injection of the pure needle form of progestin gave similar results. Thus the 2 crystalline forms of the hormone showed no physiological differences, both being able to suppress uterine motility. Since the pure hormone and the impure extract both had the same inhibiting capacity per rabbit unit, both inhibition of motility and progestational proliferation of the endometrium were caused by the same hormone.—WILLARD M. ALLEN and SAMUEL R. M. REYNOLDS. *Science*, 82 (1935), 155; through *Squibb Abstract Bull.*, 8 (1935), A-1368.

Saliva Tests. III. Detection of the Administration of Some Opium Derivatives to Horses. Reference is made to previous reports of a method for detecting morphine and heroin in saliva of horses after subcutaneous or intramuscular injection of known drugs. Thresholds for mouse tests are given for the following alkaloids: morphine, codeine, dionine, dilaudid and heroin. Normal salivas from over one hundred untreated horses have been injected into mice and none had an effect resembling that of opium alkaloids. Since "doping" of horses is not permitted by Racing Commissions it seemed advisable to conduct experiments simulating race-track conditions. Twenty horses were injected subcutaneously with colorless solutions, the composition being unknown to investigators. Gelatin capsules, whose contents were unknown, were administered by mouth to seventeen horses. Details of procedure are reported. Based upon the observations on mice an attempt was made to answer two questions: "(1) Do the mouse tests on salivas from a horse suggest that the animal has been 'doped,' (2) If 'doped,' was a large or small amount of drug administered." After opinions as to "doping" and dose were recorded code numbers were consulted. These results were tabulated. Opinions of veterinarians did not always agree. The mouse tests were correct in every instance both as to whether horse had been doped and size of dose. Further experimentation was conducted after the horse had been galloped two miles and saliva sample collected an hour and a half after administration. At the end of a week and after two months, these samples gave positive results. Veterinarians were unable to observe abnormalities in the horse. Further tests indicated that morphine is somewhat more potent than a corresponding dose of opium. Pantopon was moderately effective. Studies are being continued to try to find characteristic symptoms for each product. At present information does not permit identification in all cases.—JAMES C. MUNCH. *J. Am. Pharm. Assoc.*, 24 (1935), 557. (Z. M. C.)

Testicular Hormone—Assay for, by the Comb-Growth Reaction. II. The direct measurement of the increases in height and length of the capon comb is easily reproducible. The differences in these values as determined independently by two observers involving 548 measurements on two hundred and seventy-four capons range from 0 to 0.8 mm. with an average difference of 0.3 mm. The comb-growth response after five daily injections is more satisfactory as a quantitative measure than after two daily injections. The initial size of the comb must be taken into account in evaluating the comb-growth response to the male sex hormone. For the five-day assay-method, this involves a correction of 0.17 mm. comb growth for every millimeter difference in the initial length of the comb. This correction value holds over the range of growth employed for assay purposes. The quantitative response of the capon's comb to a given dose is not seriously influenced by age and by repeated use in assays. The body weight of the capon influences the response slightly. A difference of 500 Gm. in body weight calls for a correction of 0.4 mm. in comb-growth response after five daily injections. The "characteristic curve" expressing the relation of increase in length plus height to dosage of male hormone has been established with

greater accuracy. For the most accurate observations, an absolute increase in comb size cannot be taken for the bird-unit basis because the light factor influences the comb-growth response remarkably. Hence it is best to express all assays in terms of a standard preparation which is assayed in parallel with each set of unknowns.—T. F. GALLAGHER and F. C. KOCH. *J. Pharmacol.*, 55 (1935), 97. (H. B. H.)

Thyroid Glands—Culture of Entire. The successful culture of 15 thyroid glands, 6 from cats and 9 from cocks, is described. This is accomplished by means of a new apparatus (mechanical heart and lungs), using three nutrient media, one consisting of diluted blood serum, a second a solution of acid amines and a third a solution containing peptones. In the first two liquids, the glands diminished in volume while in the third they showed a decided increase doubling in weight in 3 or 4 days.—ALEXIS CARREL and CHARLES LINDBERGH. *Compt. rend.*, 201 (1935), 14. (G. W. H.)

Trichlorethylene—Study of the Anesthetic Properties of. In the course of another study the anesthetic properties of trichlorethylene were investigated. Using albino rats, inhalation produced surgical anesthesia in four or five minutes. Recovery was prompt. Marked stimulation of skeletal musculature accompanied anesthesia. Effect of treatment, along with control growth curve, is shown by chart. High rectal injections of solutions on rabbits did not produce anesthesia but were exceedingly irritating to colonic mucosa. Blood sugar level was determined on rabbits after inhalation anesthesia. Mild hyperglycemia resulted. Applied to sciatic nerve it did not block blood pressure or respiratory response of faradization.—JOHN C. KRANTZ, JR., C. JELLEFF CARR and RUTH MUSSER. *J. Am. Pharm. Assoc.*, 24 (1935), 754. (Z. M. C.)

Ultraviolet Light—Investigation of the Protective Effect of Various Preparations against. Five preparations (constituents not given) are tested for their protective power against ultraviolet light. To avoid the variation in the intensity of light from the sun, an ultraviolet lamp is used throughout, at a distance of 1 meter from the skin. Rectangles are marked on the skin, the spaces between covered with a material impervious to ultraviolet light, and the five preparations applied in equal amounts, one to each block and leaving one block uncoated as a control. Photographs of the skin are taken at intervals of $2^1/_2$, 6 and 16 hours after exposure to the light. Only one preparation (Dr. Wild-Balsam) showed any appreciable protective effect. Plates accompany the article.—S. WILD. *Schweiz. Apoth.-Ztg.*, 73 (1935), 413. (M. F. W. D.)

Valerian Root and Valerian Preparations—Assay of. Using a biological assay in frogs, different types of valerian preparations are evaluated including infusions made in various ways, fluidextracts and tinctures. The tinctures are reported biologically the most active, the fluidextract is next in order of activity and the ordinary infusions are least active. The ash content, moisture and volatile constituents of several commercial specimens of the root pulverized and sieved to different degrees of fineness are reported. Methods of determining the essential oil content are also studied.—A. NYLANDER. *Farm. Revy*, 34 (1935), 531, 548, 560. (C. S. L.)

Yohimbine—Non-modification of the Sympathicolytic Action of, by the Introduction of a Double Bond. Apoyohimbine, which differs from yohimbine by the introduction of a double bond into ring E, was injected into a dog and its power to antagonize the hypertensive and renal vasoconstrictor action of adrenaline measured. From the results obtained, it was concluded that apoyohimbine differs only slightly from yohimbine in its action.—RAYMOND-HAMET. *Compt. rend.*, 201 (1935), 434. (G. W. H.)

TOXICOLOGY

Alpha-Dinitro-*o*-Cresol—Toxic Reaction to. A case of a toxic reaction to alpha-dinitro-*o*-cresol (total dose 1.5 G. in 11 days) in a 14.5-yr. old obese patient, is reported. The symptoms were marked drowsiness, headache, nausea, vomiting, swelling of the fingers and hands, an itching maculo-papular rash, greenish yellow coloration of the sclerae, but no signs of jaundice of the skin or mucous membranes, and extremely dark-colored urine in which bile could not be detected; the icteric index was 24.75 and the Van den Bergh reaction negative, indicating no true hepatic involvement.—MURRAY B. GORDON and MARK J. WALLFIELD. *Ann. Internal Med.*, 9 (1935), 198 through *Squibb Abstract Bull.*, 8 (1935), A-1369.

Antidote for Heavy Metal Poisoning—A New Stabilized. The stabilized antidote for heavy metals is prepared as follows: 2 liters of water are heated to boiling for one minute, 2 Gm. of pure NaOH dissolved in one-half of the volume, which after cooling is saturated with hydrogen

sulphide previously washed by passage through a suspension of calcium carbonate in water. In the remainder of the water is dissolved 2 Gm. of magnesium chloride and 25 Gm. of sodium bicarbonate. On cooling, the second solution is poured into the first and the whole saturated with hydrogen sulphide at −2° to −3° C. The solution is then stored in a refrigerator in 125-cc. flasks fitted with rubber stoppers, tied in and paraffined. This preparation can be kept for three years without deterioration. The author describes the physical and chemical properties of the antidote, a method of standardizing it, and the metals for which it may be employed. The antidote when taken orally produces only temporary discomfort and is relatively non-toxic. It may also be used to wash heavy metal salts out of the eyes. To test the efficacy of a three-year-old sample, the author drank 50 cc. of solution containing 0.2 Gm. mercuric chloride and then 50 cc. of the antidote. With the exception of some irritation of the throat, none of the characteristic symptoms of mercury poisoning was evidenced, and in 5 days the throat soreness had cleared up.—C. STRZYZOWSKI. *Scientia Pharm.*, 6 (1935), 94. (M. F. W. D.)

Arsphenamine Poisoning—Occurrence of, among Negro Women. Of 14 cases of arsphenamine dermatitis observed by the authors in 1930–1934, 11 occurred in negresses. The average dosage of the arsenical was 0.45 Gm. and the patients averaged 4.5 doses of neoarsphenamine before the reactions were sufficiently severe to interrupt treatment. Two of the cases were fatal. Nine of the 11 cases showed a marked generalized exfoliative dermatitis and 8 showed an accompanying pruritis. Epinephrine (adrenaline) injections gave a marked relief from the pruritis; in 1 case 5 minims gave complete relief for 4 hrs. Two of the patients developed no skin lesions and were the only 2 who had no pruritis, but had a high icteric index. Fever appeared early in some cases and lasted indefinitely but the nature of the causes was undetermined. All except 1 case showed abnormally high eosinophile counts. Since symptoms and skin changes in the negro are frequently unobserved or unheeded, the physician is occasionally unable to prevent a fatality, and the mental attitude of the negro is such that treatment with arsenic is persisted in until the poisoning is well established. The negress has fragile veins of small caliber, thus accounting for the frequency of arsphenamine poisoning in the female sex.—GROESBECK WALSH and COURTNEY S. STICKLEY. *Am. J. Syphilis Neurology*, 19 (1935), 323, No. 3; through *Squibb Abstract Bull.*, 8 (1935), A-1175.

Bismuth Poisoning. Pharmacodynamics and Toxicology of Bismuth. A case of syphilis which had been treated by Bismuth cinchophen oil suspension (Bismophanol) showed a brownish green, 1-cm. wide streak on the left leg corresponding to the course of the Vena saphena magna and being 38 cm. in length. Experimental histological studies were then made and it was found that under pathological conditions there is an increased deposition of bismuth in diseased tissue, especially syphilitic granulation tissues. This substantiates similar finds of other observers.—H. SAUFERLIN. *Dermatol. Wochschr.*, 100 (1935), 585, No. 21; through *Squibb Abstract Bull.*, 8 (1935), A-877.

Cosmetic Products—Dangers of. The *Ciba-Zeitschr.* calls attention to the fatal accidents caused by the products in use in certain beauty salons. The dangers are increased when the application of certain dye products precede the removal of hair. The use of dinitro-phenol in the treatment of obesity is also extremely dangerous.—*J. Suisse Pharm.*, No. 16 (1935), 198; through *J. pharm. Belg.*, 17 (1935), 591. (S. W. G.)

Cyanide Poisoning and Its Treatment. A table of mortality statistics shows an increase in deaths from cyanide poisoning from 1930 to 1932. Cases are listed as suicidal, occupational, accidental and homicidal. A number of sources are given for occupational and accidental cases. In general, over 90% are suicidal. In some places in the west, cyanogenetic plants are the cause of large losses among animals. Ten points are listed as aids to diagnosis. Five important tests for legal purposes, with reagents needed, procedure and interpretation of results, are given. The antidote consists chiefly of sodium nitrite and sodium thiosulphate injected intravenously, with amyl nitrite by inhalation.—K. K. CHEN, CHARLES L. ROSE and G. H. A. CLOWES. *J. Am. Pharm. Assoc.*, 24 (1935), 625. (Z. M. C.)

Gold Therapy—Agranulocytosis with Purpura Hæmorrhagica Following. A fatal case of *purpura hæmorrhagica* with agranulocytosis following gold injections is reported. The prophylaxis and treatment of such cases is discussed. The necessity for frequent hæmatological studies is emphasized.—P. ELLMAN and J. S. LAWRENCE. *Brit. Med. J.*, 3900 (1935), 622. (W. H. H.)

Gold Therapy—Prevention and Treatment of Harmful Effects of. The harmful effects and contraindications of gold therapy are discussed; fever, pregnancy, advanced tuberculosis, chachexia, diabetes, liver or kidney damage, advanced age, changes in the urine, leucocytes, eosinophils (indications of cutaneous erythema) and general symptoms deserve consideration. Therapeutic agents are intravenous injections of sodium thiosulphate, hypertonic dextrose transfusion, pentosenucleotide (in agranulocytosis) and diuretics.—G. PIOTROWSKI. *Wien. med. Wochschr.* (1935), No. 21; through *Squibb Abstract Bull.*, 8 (1935), A-889.

Hydrocyanic Acid—Antidotes of, and More Particularly the Mechanism of the Antidote Action of Glutathione. In experiments on guinea pigs where 1.25 mg. hydrocyanic acid per kilo body weight was shown upon injection to be the minimum fatal dose, injection of glutathione in at least half the equimolecular quantity of hydrocyanic acid at the moment of the crisis (asphyxic coma) caused violent tremblings, resumption of breathing and ready recovery. When 2.00 mg. hydrocyanic acid per kilo was injected, the toxic action was too rapid to be overcome by glutathione. The antitoxic action of glutathione is not caused by a chemical change of hydrocyanic acid into innocuous thiocyanate compounds for which glutathione is to supply the sulphur, because in animals that survived by means of glutathione, then were killed and examined, hydrocyanic acid was practically absent in the viscera, and nontoxic thiocyanate compounds were present in about the same quantity as in parallel cases where hydrocyanic acid was applied without the use of glutathione; hence, sulpho compounds are not chemical antidotes. The action of glutathione at the critical moment of injection starts resumption of breathing sufficiently long to allow elimination of the poison through the lungs. If glutathione is administered in reduced form, it is the partial re-oxidation and re-establishment of equilibrium between the two forms of glutathione within the circulation which produces shock, *i. e.*, tremblings, spontaneous resumption of breathing and recovery. Other poisonings, *i. e.*, those that act on tissue respiration, can probably be overcome by glutathione.—M. TH. REGNIER. *14me Congrès de Chimie Industrielle, Paris* (Oct. 1934), 11 pp. (A. P.-C.)

Hypnotic Poisoning, Acute—Treatment of. Poisoning by hypnotics, particularly the barbituric acid derivatives, is discussed. Therapeutic measures consist of washing the stomach during the 1st 8 hrs. with animal charcoal and sugar-lime; N,N-diethyl-nicotinamide (Coramine); camphor which is indicated as a cortical analeptic in convulsions: large doses of strychnine intravenously to antagonize the barbiturates; oxygen; infusions with epinephrine and insulin. Hydroxy-α-(methylaminomethyl) benzyl alcohol (sympatol) and synthetic ephedrine (ephetonine) often fail.—HANS FISCHER. *Schweiz. med. Wochschr.* (1935), Nos. 20–21; through *Squibb Abstract Bull.*, 8 (1935), A-1375.

Pyrethrins—Comparative Toxicity of, with Respect to Different Classes of Animals. Pyrethrin emulsions of known concentration were injected into the general cavity of various animals and the average minimum lethal dose determined in mg. per Kg. The following were used as test animals: Polypes, sea anemone; Echinodermes, sea urchin and starfish; Crustaceans, crab, sea spider, crawfish, scorpion; Insects, Blaps requieni; Worms, earth-worm, sand-worm, leech; Mollusks, oyster, snail and cuttle-fish; Cold-blooded Vertebrates, frog, green lizard, snake, tortoise; Warm-blooded Vertebrates, rat and guinea pig. Pyrethrins showed a special toxicity toward the crustaceans, they being killed by 1/100 to 1/150 mg. per Kg. Toward the other classes of animals the toxicity was variable.—OLIVIER GAUDIN. *Compt. rend.*, 201 (1935), 356. (G. W. H.)

Sabina—Two Cases of Intoxication by. The tops of *Juniperus sabina* L., when taken orally in large doses, sometimes produce abortion followed by fairly serious poisoning. Two fatal cases of such poisoning are discussed, in both of which death occurred without abortion having taken place. The oil of sabina is fixed in the lungs, liver, uterus and kidneys, especially in the lungs and kidneys. Analysis of an aborted fœtus showed the presence of oil of sabina in the viscera, which proves the permeability of the placenta to the drug, and which can be valuable for proving abortion in non-fatal cases. Preservation of the viscera in formalin reduces the sensitiveness of the test from 0.1 Gm. to 0.5 Gm., and prevents a positive reaction with alcoholic hydrochloric acid.—MARIE J. PAPAVASSILIOU. *Ann. Méd. Légale Criminol. Police Sci.*, 15 (1935), 778–781. (A. P.-C.)

Sodium Formaldehyde Sulfoxylate—Value of, in Mercury Poisoning. The authors review the work previously reported on the use of sodium formaldehyde sulphoxylate (I)

in mercurial poisoning. I is a powerful reducing agent and is more stable in the body than sodium thiosulphate and sodium hydrosulphite. Owing to its low toxicity as much as 10–15 Gm. may be given intravenously in 10% solution, 5–10% as gastric lavage leaving 100–200 cc. in the stomach and a 5% solution by enema. Treatment is repeated in severe, acute cases within 4–6 hours and again in 24 hrs. In 1 case reported, treatment consisted of 6 intravenous injections of I over a period of 4 days. In the second case following a large amount of calomel, intravenous injection of I during 4 days was followed by complete recovery. In both of the reported cases, the poisoning was not severe, so that intravenous treatment alone was used. In cases of severe poisoning with mercuric chloride, intravenous injection should be accompanied by oral use and enemas to avoid tissue destruction.—WM. E. ROBERTSON and VERNON L. TUCK. *J. Chemotherapy*, 12 (1935), 226, No. 2; cf. *S. A. B.*, 7 (1934), 633; through *Squibb Abstract Bull.*, 8 (1935), A-1189.

Sodium Perborate Preparations—Harmful Effects of. Sodium perborate preparations when used as a mouthwash or dentifrice occasionally produce escharotic effects on the oral mucosa characteristic of chemical burns. This may occur as an idiosyncrasy to the drug, or more likely may be due to sodium hydroxide impurities or the strong essential oil flavorings in the preparation. Two cases are reported in which the symptoms were a burning sensation of the mucous membrane of the mouth which was found to show inflammation and moderate cyanosis, sloughing epithelium on the inner surfaces of the lips, cheeks and buccal folds, thickened cheeks, swollen dry lips, swollen tongue and in one case a typical brown hairy tongue. When a mild saline mouthwash was substituted the symptoms disappeared in 3–4 days. Pin head ulcers seen on the alveolar mucosa or cemental gingiva in the above cases are more frequent when the preparation is used on the tooth brush as a dentifrice, suggesting a traumatic effect of the sharp crystals of the powder.—CHARLES H. M. WILLIAMS. *J. Canadian Dental Assoc.*, 1 (1935), 267, No. 6; through *Squibb Abstract Bull.*, 8 (1935), A-906.

Toxin X. The author designates as "Toxin X" poisons occurring in whole grain cereals—tea, coffee, cocoa, fruits and certain vegetables picked before maturity, beers and ales, malt extract, yeast, honey, brown sugar, nuts and olive oil. These toxic substances in foodstuffs can be detected by the physiological effects produced by the consumption of liberal quantities of the specified foods over a period which may vary from a few days to a few weeks. The effects referred to are: (1) The production of bilious conditions, (2) inflammation of mucous membranes, (3) predisposition of ordinary body tissue to sensitive and painful conditions, (4) marked interference with normal digestive, assimilative and excretory process. "Toxin X" is described as both a tissue poison and an astringent. A diet free from the toxin-bearing foods gives absolute immunity from the disorders.—C. W. GREEN. *J. Soc. Chem. Ind.*, 54 (1935), 717. (E. G. V.)

Tribromethanol Anesthesia. Solid tribromethanol, used as a general anesthetic, has proved decidedly dangerous. The chief danger from the use of this preparation is respiratory depression; but so far no death has been caused by tribromethanol in amylene hydrate, nor have there been any fatalities from post-operative pulmonary complications.—F. SHIPWAY. *Clinc. Med. and Surg.*, 42 (1935), 434. (W. H. H.)

Venoms of North American Pit Vipers—Studies on. The danger to man from the bites of pit vipers, varies almost directly with the size of the species. The larger species of viper gave the largest number of fatal doses per extraction. The more primitive forms have venoms more toxic to the nerve centers.—T. S. GITHENS. *J. Immunol.*, 29 (1935), 173. (A. H. B.)

THERAPEUTICS

Adrenaline—Inhalation of, for the Relief of Asthma. Using an atomizer which creates a fine vapor-like spray, a 1:100 solution of adrenaline is inhaled while nebulizing the solution into the open mouth. Dosage is determined by the number of inhalations and varies with each individual. For administration to children and babies a motor driven air pump is used to create a continuous spray into a small face mask. The degree of relief obtained by this method is comparable to that resulting from the hypodermic administration of the 1:1000 solution.—J. B. GRAESER and A. H. ROWE. *Calif. and West. Med.*, 43 (1935), 110. (W. H. H.)

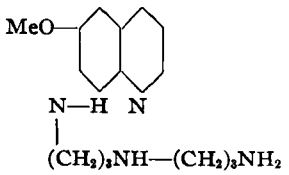
Allergy. A general discussion of common allergies, with emphasis on cosmetics.—HERMAN GOODMAN. *Am. Perfumer*, 31 (1935), 97–100. (G. W. F.)

Anti-Malarial Drugs of Natural Origin. The only anti-malarial drugs generally accepted as such are the cinchona alkaloids and the new dialkylaminoalkylaminoquinolines and acridines.

Tests in bird malaria were used in an attempt to settle a long outstanding controversy, *viz.:* that of the relative, anti-malarial efficiency of the various cinchona alkaloids, of which there are eight—quinine, quinidine, cinchonidine, cinchonine, each being accompanied by its dihydro-derivatives. The results show they may be arranged in the following descending order of activity:

	Quinine Equivalent
Dihydroquinine	1 to 2
Quinine	1
Dihydroquinidine	0.5 to 1.0
Cinchonidine	About 0.5
Quinidine	About 0.5
Cinchonine	Less than 0.2
Dihydrocinchonine	Less than 0.2
Dihydrocinchonidine	Less than 0.2

These results are of interest as supporting the general view that quinine is the most active of the common cinchona alkaloids. Certain derivatives of plasmoquine in which variations had been made in the type of side-chain attached to the N of the amino group were promising. One of them, corresponding to the formula



had given good results in bird malaria, and was worthy of further trial. A brief account of the history of plasmoquine (1924) and atebrin (1930) was also given.—T. A. HENRY, R. ROBINSON and W. SCHULEMANN. *Pharm. J.*, 135 (1935), 276. (W. B. B.)

Antimony Content in Drugs—Consideration of the, Used for Destruction of Schistosomes. The antimony content, therapeutic dose and value and in some cases the tolerated dose and stability have been given for the following: antimony-potassium and antimony-sodium-tartrates; N-glucoside of sodium *p*-stibanilate (neostam); sodium and potassium-antimony-pyrocatecholdisulphonates (fuadin and antimosan, respectively) and the corresponding calcium salt, which is of service in skin conditions for which antimony is used but has no greater value than the other salts in the destruction of schistosomes; antimony-*bis*-hydroxyquinoline-sulphonate diethylamine (stibilase, Dn 7); antimony-methylene-bisulphite-amino-hydroxyquinoline-sodium-sulphonate (trystibine, Dn 18); acetyl-*p*-phenylenediamine antimony tartrate, and *p*-phenylene-diamine antimony tartrate.—F. GORDON CAWSTON. *J. Trop. Med. Hyg.*, 38 (1935), 169, No. 14; through *Squibb Abstract Bull.*, 8 (1935), A-1151.

Athlete's Foot. Three definite forms occur: (1) vescular, which may appear suddenly on any part of the foot usually between the toes and under the instep, and is characterized by itchy patches of dermatitis, (2) intertriginous, more severe, often painful and intensely itchy, developing between the toes as a white sodden mass of broken skin and (3) chronic, which may appear on the hands and is identified by hardening of the skin on the infected area. The following formulas are offered: (1) *Lotion.*—Sodium thiosulphate 10%, water 90. (2) *Dusting Powder.*—Sodium thiosulphate 20%, boric acid 80; (3) *Lotion.*—Mercury perchloride 0.3%, carbolic acid, acetic acid (glacial) 8, water 89.7; (4) *Paint.*—Potassium permanganate 5%, water 95; (5) *Ointment.*—Ammoniated mercury 5%, salicylic acid 10, white petrolatum 85; (6) Phenol 2%, benzoic acid 3.5, boric acid 5.5, cold cream 89.—ANON. *Drug and Cosmetic Ind.*, 37 (1935), 180, 192. (H. M. B.)

Avertin Anesthesia—Treatment of Tetanus with. A case of severe tetanus neonatorum with recovery is described. Treatment consisted of one large initial dose of intravenous antitoxin followed by continuous anesthesia with avertin for eleven days and smaller doses for a further twelve days. Nasal oxygen was given continuously for long periods and a normal diet by stomach tube which was left *in situ*. A total of 19.2 cc. of avertin was given in the first eleven days and 22.4

cc. altogether in twenty-three days. It is suggested that treatment on the above lines with large and frequent doses of avertin will prove of great value in the treatment of severe cases of tetanus. The need for caution in giving such large doses is emphasized.—L. COLE. *Lancet*, 229 (1935), 246. (W. H. H.)

Azo Dyes—Sulphide Analogues of, Having Bactericidal Properties. The present report is a continuation of studies previously reported. The compounds prepared are of two types. One combined the diaryl sulphide linkage with the *p*-ethoxy benzene-azo residue of serenium. Two combined the diaryl sulphide linkage with the diaminopyridine grouping of pyridium. 4, 4'-*Bis* (α,α-diaminopyridine-azo) diphenyl sulphide and 3, 5-*bis* (4'-amino diphenyl sulphide-azo) 2, 6-diaminopyridine. They were found to be only slightly soluble in media in which they might be used and they were inactive. Details of experimental work are reported and structural formulas of the compounds prepared are given.—W. BRAKER and W. G. CHRISTIANSEN. *J. Am. Pharm. Assoc.*, 24 (1935), 607. (Z. M. C.)

Azochloramid—Use of, in Root Canal Antisepsis. Like other chlorine compounds, but unlike all other antiseptics, azochloramid is not markedly group specific, destroying most types of micro-organisms. In a comparison with other chlorine compounds, namely, chlorinated soda and chloramine-T, a solution of chlorinated soda dropped to 10% and chloramine-T to 50% after four hours, while even after 24 hours most of the azochloramid originally added was still active. A quick test for the presence of otherwise invisible quantities of azochloramid is the acidulated starch-iodide test. The material to be tested is brought in contact with a small quantity of potassium iodide solution, acidulated with acetic acid or hydrochloric acid and containing a small amount of starch solution. The presence of azochloramid causes this solution to assume a blue to black hue owing to the formation of free iodine. This test was used as an indicator to trace the degree of penetration of the compound through pulpless teeth. Teeth, freshly removed in pyorrhea cases, were opened in the crown and the pulp was removed, the canal cleared and the tooth set in a small block of cement. The root canal was filled with an azochloramid dressing, just as if the tooth were still under treatment in the patient's mouth. After a day or two, test borings were made and small drops of the test solution placed in contact with the dentin. In most cases, the dark color appeared in 24 hours, showing that penetration of the dentin was accomplished. In a series of 63 consecutive cases treated, successful application of azochloramid in treatment was made.—H. J. ROSS. *J. Am. Dent. Assoc.*, 22 (1935), 637. (T. G. W.)

Bedsores—Treatment of. If the skin is rough and excessively dry the following ointment should be rubbed in after the back has been washed with hot water: zinc stearate, 5; tincture benzoin, 5; scarlet red ointment 5%, 0.25; hydrous wool fat, 30; liniment of camphor, 180; mutton tallow, 500. For hardening the skin a 5% solution of silver nitrate may be painted on. Moist treatment is only indicated in cases of spreading infection or of retained pus. Warm boric acid compresses are used and irrigations of solution of chlorinated soda.—ANON. *Pharm. J.*, 134 (1935), 565. (W. B. B.)

Calciferol—Treatment of Low-Calcium Tetany with. The progress of three cases of low-calcium therapy, treated with calciferol, is described. It has been found possible to maintain the patients free from symptoms with normal blood findings. Possible toxic effects are discussed.—R. S. STACEY. *Lancet*, 229 (1935), 656. (W. H. H.)

Castor Oil—Newer Uses of. Castor oil is of the greatest value in gastroduodenal catarrh, colitis and the so called irritable colon. In the toxemias associated with chronic constipation and malignant disease, it will be found of greatest assistance. Its detoxicating effect on the products of tissue destruction in burns is of more than passing significance. In urinary sepsis, as found associated with chronic inflammatory urinary conditions—pyelitis, prostatic hypertrophy, chronic prostatitis and new growths—all other pharmaceuticals used to produce evacuation must give way to castor oil. The author claims that salines are dangerous, and therefore are to be avoided, in urinary disease.—W. S. PUGH. *Clin. Med. Surg.*, 42 (1935), 324. (W. H. H.)

Chaparro Amargoso—Use of, in Treatment of Amebic Dysentery. A literature review is given of the therapeutic use in amebic dysentery of *Chaparro amargoso* (*Castela Nicholsoni*) or bitter bush, a shrub growing in Mexico and Texas. The active principle is available under the name Castamaragina. In the discussion following the paper Blake describes his experience with the drug. It gave excellent results in cases that did not tolerate arsenicals. On the other hand, the drug was not tolerated by some, two cases showing typical severe allergy. Lindley uses the

drug for all kinds of intestinal disorder with excellent results, but Blake found that in amebic dysentery of the upper intestinal type, the best results are obtained with arsenicals such as N-carbamyl-arsanilic acid (carbarsone) and that emetine is the only drug to be depended on where there is liver involvement.—G. W. VAN HALTERN. *J. Am. Coll. Proctology*, 7 (1935), 402; through *Squibb Abstr. Bull.*, 8 (1935), A-921.

Chemotherapeutic Research—Some Lines of. A brief survey of some of the lines in which chemotherapeutical research is developing, including a discussion of some arsenicals, bismuthials and antiseptics.—F. L. PYMAN. *J. Soc. Chem. Ind.*, 54 (1935), 580. (E. G. V.)

Cinchophen (Atophan) Therapy and the Liver. The action of cinchophen consists in mobilization of uric acid, desinflammation and in stimulation of hepatic secretion. The bile secretion may be increased by 300% after 2–3 daily doses of one Gm. orally. The parenteral dose is 0.5 to one Gm. The results in hepatic icterus are very favorable. The diet in such cases should be rich in carbohydrates. This precaution prevents any damage to the liver. B. believes, that most cases of cirrhosis after cinchophen treatment would have developed as well without the use of the drug.—THEODOR BRUGSCH. *Semana méd.* (Buenos Aires), 42 (1935), 1907. (A. E. M.)

Cod Liver Oil Concentrate—Retention of Calcium by Infants Fed Evaporated Milk Containing. Milk containing cod liver oil concentrate sufficient to allow 400 U. S. P. units of vitamin D to the reconstituted quart, allows high retention of calcium, prevents the development of rickets and permits excellent development and growth of infants.—P. C. JEANS and GENEVIEVE STEARNS. *Proc. Soc. Exptl. Biol. Med.*, 32 (1935), 1464. (A. E. M.)

Cod Liver Oil Treatment of Wounds. When crude cod liver oil is used for the treatment of second and third degree burns, there is a complete healing of the wound without the trace of a scar or the usual brown pigmentation of the skin. If *Staph. pyogenes aureus* is inoculated into cod liver oil and incubated for forty-eight hours, it will be found that the bacteria are still alive but their growth inhibited. Whether the vitamin content in cod liver oil has a natural affinity for the skin and the underlying tissues it is difficult to say, but there is obviously some factor in cod liver oil which is not present in such oily dressings as liquid paraffin. This "something" has the effect of much more rapid healing and the almost entire elimination of scar tissue.—J. P. STEEL. *Lancet*, 229 (1935), 290. (W. H. H.)

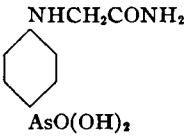
Colloidal Gold in Inoperable Cancer. In order to secure maximum results with colloidal gold in the treatment of inoperable carcinoma, the following conditions must be fulfilled: The preparation used must be stable, of definitely known strength and the particles of gold must be small and of fairly uniform size; the gold must not be held in suspension by the use of a stabilizer, such as gum arabic, or soluble gold salts, such as chloride of gold. Stabilizers seem to coat the particles of gold and this renders colloidal gold less active; moreover, the soluble gold salts are toxic, while pure colloidal gold is non-toxic in suitable doses. A colloidal gold preparation which fulfilled the foregoing requirements and which contained $^1/_{600}$ grain of metallic gold to ten drops was employed. The dose used was 30 drops in a wineglass of water one-half hour before each meal, three times a day. This was increased one drop daily to 60 drops at each dose. The intravenous dose was 1 to 5 cc., twice a week.—E. H. OCHSNER. *Clin. Med. Surg.*, 42 (1935), 321. (W. H. H.)

Cyclopropane Anesthesia in Obstetrics. Cyclopropane is an efficient anesthetic producing analgesia for each pain, following one or two inhalations. It is also powerful enough to produce complete anesthesia, even when given with a high percentage of oxygen. Neither the mother nor the child is in any danger of asphyxiation with this anesthetic. The uterine contractions are not interfered with, and such anesthesia does not cause vasomotor shock, though it produces complete relaxation of the voluntary muscles.—R. T. KNIGHT. *Clinic. Med. and Surg.*, 42 (1935), 433. (W. H. H.)

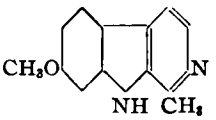
Dermatitis—Preparations for. The following formulas are offered: (1) Propyl-*p*-aminobenzoate 3%, butyl stearate 4, alcohol 7, beta-naphthol 2.5, cetyl alcohol 2, olive oil 3, water 65.5, glyceryl monostearate 4, ether 9. Boil the glyceryl ester, oil, cetyl alcohol, butyl ester and water. Mix until the temperature drops to 30° C. Dissolve the betanaphthol in alcohol, add the propyl derivative in ether and stir in; (2) Picric acid 0.5%, alcohol 7.5, water 92. Dissolve the acid in the alcohol and add to the water. To make anesthetic add 5–6% of the compound; (3) *Soothing Lotion.*—Salicylic acid 1.0%, menthol 0.3, rose water 95.7, alcohol 3. Dissolve the menthol in

the alcohol and the acid in the water and mix. (4) Calamine 6 %, zinc oxide 2, lime water 91, camphor 0.5, phenol 0.5. Mix the camphor and phenol and allow to stand until liquefied; sift the oxide and calamine into the lime water with constant agitation and add the above mixture. (5) *Antiseptic Ointment.*—Ammoniated mercury 5%, boric acid 4, zinc oxide 10, oil of cade 0.5, soft white petrolatum 80.5. Melt the petrolatum, stir in the rest of the substances, cool and pass through an ointment mill. (6) *Anæsthetic Oil.*—Propyl *p*-aminobenzoate 5%, oxyquinoline benzoate 0.2, refined sesame oil 94.3, oil of cade 0.5. Heat and mix the oils and dissolve the first two ingredients.—ANON. *Drug and Cosmetic Ind.*, 37 (1935), 318, 326. (H. M. B.)

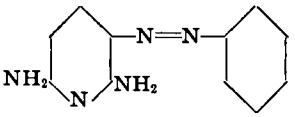
Drugs—Constitution and Action of. The chemical structure of the anti-syphilitic arsenicals has changed little in the last twenty years. Then, as now, 3-amino-4-hydroxyarsenobenzenes were the most effective remedies. Certain simpler 3-amino-4-hydroxyphenyl derivatives of arsenic have recently found favor, principally Halarsol and Mapharsen. In dysentery, on the other hand, pentavalent arsenicals and not trivalent, are required, and compounds of the type of Tryp-



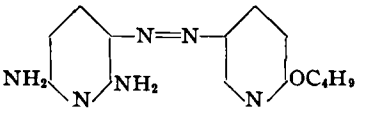
arsamide, and its lower homologue, Carbarsone, are employed. Oil-soluble bismuth salts form deposits which are slowly absorbed, yet not so slowly as the metal itself. In neurosyphilis, sodium iodobismuthate, Na_2BiI_5, dissolved in glycol is injected, and in this case the bismuth is in the anion. Morgenoth, in 1911, was able to show in some simple derivatives of hydroquinone that in ascending an homologous series distinct peaks of maximum antiseptic activity against different organisms were obtained. As a result he produced Optochin, Eucupin and Vuzin, respectively, the ethyl, *iso*-amyl, and *iso*-octyl derivatives of hydrocupreine. The recent work of Barger and Robinson has shown that whereas the natural alkaloid harmine,



is inactive, yet the corresponding alcohol harmol, etherified with butyl, amyl and nonyl groups yields peaks of activity against *B. typhosus*, *Staphylococcus aureus* and *Entamœba histolytica*, respectively. Two urinary antiseptics of recent introduction are azo-pyridines:



Pyridium



Neotropin

F. L. PYMAN. *Pharm. J.*, 134 (1935), 619. (W. B. B.)

Enteric Coatings—Comparative Study of. Previous study had shown a wide variation in efficiency of coating materials. Through the coöperation of several manufacturers their enteric coatings on tablets of barium sulphate were studied. Five different coatings were submitted, two of keratin, one salol-shellac, one shellac and a mixture of salol and resins. In every case they resembled any sugar-coated tablet. Subjects for the experiments were normal individuals in apparent good health. The X-ray was used to determine exact point of disintegration. Subjects were given tablets followed at once with glass of water containing a teaspoonful of Bari-O-Meal. The first radio-graph was taken in thirty minutes and afterward at intervals. Results are tabulated according to type of coating, and tabulation shows number of tablets taken, time taken and point and time of disintegration. The data show about as much variation in the commercial coatings as in those prepared in the laboratory. Keratin coating No. 1 was completely disintegrated in the stomach in about one hour. Keratin coating No. 2 showed 13 tablets disintegrated in the colon, four in the small intestine and one in the stomach. Point of disintegration

for seven was unknown and three were excreted. This coating then was 80.95% efficient. Shellac coating was shown to have no value for enteric medication. The salol resin mixture showed that 13 tablets disintegrated in the stomach and 22 in the intestines. Five had not disintegrated when the last picture was taken. This coating was 63.00% efficient. The salol-shellac coating showed that eight tablets disintegrated in the small intestine and four in the stomach. Four capsules disintegrated in the small intestine and five in the stomach. The fate of three was not determined. Average time was 6 hours for tablets and four for capsules, percentage of efficiency being 66.66 and 44.44, respectively. None of the coatings studied was perfect. Best results seem to result with keratin *properly* applied. Considering absorption rate of colon less than small intestine, salol mixtures seem best. Capsules are not as efficient as tablets because of mechanical difficulties.—F. S. BUKEY and PHYLLIS RHODES. *J. Am. Pharm. Assoc.*, 24 (1935), 567.

(Z. M. C.)

Ergot—Alkaloids of. Ergometrine. The author recommends that ergometrine, when given for post-partum hemorrhage, should be given in the following doses: by the mouth, 1.0 mg.; intramuscularly, 0.5 mg.; intravenously, 0.125 mg. Fifty per cent increases above these doses have been administered without any untoward effect. As regards the clinical uses of the ergot alkaloids, the ergotoxine group is useful when a longer duration of uterine spasm is required. Ergometrine has the valuable properties of ergotoxine, but with special advantages in its remarkably quick action, particularly in the treatment of post-partum hemorrhage. Ergometrine is a possible alternative to pituitary post-partum; given intravenously it has actually quicker effect than an intramuscular dose of pituitary.—C. MOIR. *Pharm. J.*, 134 (1935), 63. (W. B. B.)

Ergotamine Tartrate (Gynergene) Ointment—Use of, in Ano-Vulvar Pruritus. The formula used was benzoated fat and lanolin of each, 12 Gm., solution of ergotamine tartrate 0.1% one cc. Cure was obtained in obstinate cases.—J. C. GONZÁLEZ PODESTÁ and ALBERTO TORDERA. *Semana méd. (Buenos Aires)*, 42 (1935), 122. (A. E. M.)

Forapin—Use of, in Rheumatic Diseases. Rheumatic diseases are treated with Forapin, an ointment containing bee poison by means of Iontophoresis. To increase the absorption of the bee poison, 0.3% histamine is added (Ointment of Forapin with histamine).—R. SPENGLER and G. PRIBERT. *Deut. Med. Wochschr.*, 61 (1935), 962–963. (H. R.)

Gold Salts—Use of, in Treatment of Pulmonary Tuberculosis. The following conclusions are given: The action of gold salts in the treatment of pulmonary tuberculosis is far from being as complete as many physicians suppose it to be. This action is not specific. Their general and inconsiderate use often leads to serious results. They are not, however, devoid of some value; their use is justified in certain well-defined cases and on condition that the dosage is prescribed with caution.—GEERAERD. *Buysinghen, Bruxelles-Méd.* (June 30, 1935), 953; through *J. pharm. Belg.*, 17 (1935), 611. (S. W. G.)

Gonococcus Vaccine—Use of, in Acute Gonorrhea. A vaccine treatment with simultaneous use of extended local rinsing was indicated for acute gonorrhea and shortened duration of illness. But this treatment was not indifferent and should be given first after the disappearance of the acute symptoms about the 9th–11th day of illness, injections being given every 3rd–5th day. Vaccine therapy during the acute symptoms makes the course of the gonorrhea worse.—MARIASSIN and BAJEWSKIJ-SOWET. WESTNIK VENEROL. *Dermatol.* (1935), No. 4; through *Dermatol. Wochschr.*, 101, No. 30 (1935), 931; through *Squibb Abstract Bull.*, 8 (1935), A-1166.

Hematoporphyrine—Use of, as a Therapeutic Agent in Psychosis. The hydrochloride of hematoporphyrine (Photodyne) was used in 37 cases of depressive psychosis. The majority of the patients showed improvement though the psychosis itself was not influenced.—EDWARD A. STRECKER, HAROLD P. PALMER and FRANCIS G. BRACELAND. *Semana Méd. (Buenos Aires)*, 42 (1935), 1534. (A. E. M.)

Heroic Drugs—Maxima Doses of Galenical Preparations of. After giving the results of his study on several drugs, the author presents the following considerations. The pharmacist and doctor must know the maxima doses of the heroic drugs and the preparations made from them. A simpler dose relationship is advocated and the following is offered: "1. The strength in active principles of a tincture corresponds to one-tenth of the strength in active principles of the powdered drug. 2. The strength in active principles of the extract should be double that of the powder." The fixing of the strength of powdered heroic drugs at 0.5% in active principles is also urged. The

maxima doses of the eleven heroic drugs and their preparations are presented in a table (XIII).—ZUNZ. *Bull. Academie*, No. 4 (1935); through *J. pharm. Belg.*, 17 (1935), 553. (S. W. G.)

Histidine Monohydrochloride—Value of, in the Treatment of Peptic Ulcer. Over a period of four months, the histidine monohydrochloride (larostidin) treatment has been applied to twenty-six cases, twenty-four of duodenal ulcer, one marginal ulcer and one gastric ulcer. Marked diminution of acidity almost to the point of anacidity occurred in one-quarter of the cases. Pain is alleviated in comparatively short time. There is a definite gain in weight and patients are able to tolerate a liberal diet.—H. A. RAFSKY. *Med. Record*, 142 (1935), 289. (W. H. H.)

Insulin Treatment of Menorrhagia and Metrorrhagia. The author summarizes the favorable results of others, and describes his own, from insulin treatment of excessive uterine bleeding. His best results were obtained in menorrhagia in young subjects, in whom not infrequently the intermenstrual interval could be increased from about two to four weeks, and the duration of bleeding reduced one-half; and in continuous profuse bleedings of metropathia hæmorrhagica of puberty. Functional bleedings in older subjects were less constantly responsive to insulin treatment. As a special feature of his treatment the author recommends "prophylactic," intermittent insulin injections, beginning five days before the date of expected menstruation, carried on until the delayed bleeding begins, and then suspended. The initial dose may begin with 10 units twice daily, increasing to 20 or 30 units; a low blood-sugar level calls for smaller doses. Sugar and starches are given in considerable amounts. Simultaneous administration of ergot, which increases insulin sensitiveness, is contraindicated.—E. KLAFTEN. *Zentralbl. f. Gynäk.* (June 29, 1935), 1512; through *Brit. Med. J.*, 3901 (1935), 710C. (W. H. H.)

Ipecac—Brief Study of. The physiological action, indications and antidotes for ipecac, and the drugs which follow it well, are discussed. Its action is compared with that of antimony tartrate.—H. FARRINGTON. *J. Am. Inst. Homeopathy*, 28 (1935), 404; through *Squibb Abstr. Bull.*, 8 (1935), A-1003.

Lipiodol—Use of, as a Therapeutic Agent. The value of lipiodol in diagnosis is now well recognized, but its beneficial effect on certain inflammatory conditions may not be generally appreciated. Two cases of localized chronic inflammatory meningitis are reported, both having a certain amount of paresis with loss of control of rectal and bladder sphincters. In both of them, lipiodol was injected into *cisterna magna* primarily for diagnostic purposes, and in both of them the symptoms were alleviated in an almost miraculous way, with complete cure later.—G. HARROWER. *Lancet*, 229 (1935), 715. (W. H. H.)

Lysates. The designation lysate is derived from lysis which signifies dissolution or separation. Under this designation preparations are marketed derived from various animal organs by means of fermentative dissolution or by autoclaving. According to some authors lysates represent organotherapeutic preparations, the active principles of which are products of tissue decomposition of individual organs. Each lysate consists of a dynamic and a plastic fraction. The dynamic fraction is the specific and the active one. The plastic fraction is represented essentially by polypeptids and amino acids; its function is to assure nutrition. It has been shown experimentally that many lysates are actually specific; for instance, in rabbits lysates prepared from kidney tissue always produce a nephritis while lysates prepared from other organs have absolutely no influence on the kidneys. Myolysate given subcutaneously or internally was found very useful in the treatment of various cardiac affections, especially *Angina pectoris*. Testolysate, a lysate derived from testicular tissue is widely employed in the treatment of sexual neurasthenia. Ovariolysate, a lysate derived from ovarian tissue has been successfully employed in the treatment of infantilism, incomplete development of the secondary sexual traits, hypoplasia of the female genital organs, oligomenorrhea, dysmenorrhea, amenorrhea and polymenorrhea. It has also been successfully employed in the treatment of some abnormalities associated with pregnancy.—A. RABINOVITSCH. *Soviets. Pharm.*, 2 (1935), 21. (A. S.)

Malaria—Chemotherapy of. In Germany two synthetic anti-malarials—plasmoquine and atebrin, have been prepared. The most important defect of quinine as an anti-malarial is its failure to prevent infection. In an investigation with quinine, atebrin and plasmoquine against infections of malignant tertian malaria, all the controls who took no prophylactic drug and all those who took quinine as a prophylactic had their attack of malignant tertian malaria within the usual incubation period, but none of those who took atebrin or plasmoquine had any malarial attack. Other defects of quinine are (*a*) it is not equally effective against all species and strains

of the human malarial parasite, and (*b*) it fails to prevent relapses which are so troublesome in some cases of malaria.—S. P. JAMES. *Pharm. J.*, 135 (1935), 276. (W. B. B.)

Morphine Habituation, Withdrawal Cure with Quinine. A case is reported of the dehabituation to morphine-hydrochloride orally in solution by gradually replacing progressively larger proportions of the morphine in solution by quinine.—HERM ALPERS. *Munch. med, Wochschr.*, 82 (1935), 1327, No. 33; through *Squibb Abstract Bull.*, 8 (1935), A-1378.

Octinum—Use of, in Smooth Muscle Spasm. Spasms of the digestive tract, gall bladder and bile duct can be treated with Octinum. The action of this drug consists in a lowering of tonus and rhythm of smooth muscle. It acts like atropine and papaverine but is less toxic than either of the two.—W. HUG. *Deut. Med. Wochschr.*, 61 (1935), 951–953. (H. R.)

Opium—Administration of, to Infants in India. The habitual administration of opium to infants has been prevalent in India for many centuries. The habit appears to have started from the drug's power of allaying diarrhea and vomiting, relieving cough and pains, and producing sleep. The custom, although still met with in almost every part of India, has greatly declined during the last two or three decades, but the drug is still thus employed extensively in the industrial areas, in the Central Provinces and in Behar. The main reason for administering the drug is economic; it is given to keep the children quiet so as to allow the mother to carry on her work in the factory or field, unhampered. The practice is begun during the first few weeks of the infant's life. It is usually discontinued when the child attains the age of two or three years, when it begins to play about, and can live on ordinary food. The dose given varies from $^1/_8$ to 3 grains daily. The drug affects the child's health adversely and hinders growth. Children receiving opium have an emaciated, unhealthy and toxæmic appearance. They are more liable to infection, and the mortality rate among them is comparatively high. Although cases of fatal overdosage are not common, they occur. Non-fatal overdosage is not uncommon.—R. N. CHOPRA and G. S. CHOPRA. *Ind. Med. Gaz.*, 69 (1934), 489; through *Quart J. Pharm. Pharmacol.*, 8 (1935), 311. (S. W. G.)

Potassium Chloride—Effect of Large Doses of, on Myasthenia Gravis. Potassium chloride given in large doses (10–12 Gm.) by mouth gives a demonstrable improvement in myasthenia. In small repeated doses it is a useful adjuvant to prostigmin. The theoretical considerations which led to these experiments are described and discussed.—L. P. E. LAURENT and W. W. WALTHER. *Lancet*, 228 (1935), 1434. (W. H. H.)

Providoform—Use of, in Skin Disinfection. A 5% tincture of Providoform (Tribrom-β-naphthol) is recommended for disinfecting skin and mucous membranes instead of 10% tincture of iodine because of its greater disinfecting power, greater solubility and power of preserving good visibility of cutaneous blood vessels.—WOLFGANG UTER. *Deut. Med. Wochschr.*, 61 (1935), 967–968. (H. R.)

Pyorrhea—Powder for Treatment of. Ide recommends the following formula: Each time the burning is felt, take the following: Calcium carbonate 100 Gm. and sodium bicarbonate 10 Gm. One teaspoonful of this powder in a soupspoonful of rice water, swallowing the paste thus prepared without drinking immediately after the administration.—IDE. *Rev. méd. Louvain* (1935); through *J. pharm. Belg.*, 17 (1935), 612. (S. W. G.)

Quechuol-Dominguez—Malaria Treatment with. The remedy contains per tablet: total alkaloids of *Cinchona succirubra* as hydrochlorides 0.177 Gm., resino-tannin compounds from same 0.038 Gm., total alkaloids of *Berberis flexuosa* (sulphates) 0.075 Gm., alkaloids of Aspidosperma (*Quebracho blanco*) 0.01 Gm.; resino-tannins and saponins from same 0.015 Gm. It is concluded from clinical experience that a synergism exists between the different ingredients, as better results are obtained than with Cinchona alkaloids alone.—NICETO S. LÓIZAGA and LUIS CLATRO SAGASTUME. *Semana méd.* (*Buenos Aires*), 42 (1935), 562. (A. E. M.)

Radium and Mesothorium—Use of, in Treatment of "Non-Malignant" Hæmorrhage. Radium is preferred to X-rays in the treatment of "non-malignant" uterine hæmorrhage, because it has been found to cause less troublesome symptoms of artificial menopause and is thought to act directly upon the endometrium. There are 512 "metropathic cases"—excessive haemorrhage, in the absence of gross disease, mostly near or beyond the climacteria—cited, and 149 cases of myoma treated by intra-uterine application of radium (or mesothorium), with no death and only a dozen failures. As a rule irradiation is preceded by curettage but is omitted in myomatous patients whose menses, though excessive, are perfectly regular. The

dosage is 2000 to 3000 mg.-hours with a brass filter 1 mm. thick.—H. EYMER. *Zentrabl. f. Gynäk.* (May 25, 1935), 1202; through *Brit. Med. J.*, 3893 (1935), 326D. (W. H. H.)

Rossium—Use of, in Alcoholism. The therapeutic action of Rossium (diphenylmethylpyrazolonyl), in the majority of chronic alcoholism, has been demonstrated to be quickly effective. The normal nervous balance returns in a surprisingly short time. It materially reduces the period of physical trembling and mental as well as nervous craving, provided the patient is really sincere in his desire to get rid of his need or vicious habit. The beneficial therapeutic effect of Rossium has likewise been observed in delerium tremens and dipsomania.—I. I. OSTROMISLENSKY. *Clinic. Med. and Surg.*, 42 (1935), 423. (W. H. H.)

Silver Salts—Use of, in Pyelonephritis. The author advises silver salts, orally and locally in the treatment of pyelonephritis, and cites twenty-one cases of cure by this method. A tablespoonful of a 2% solution of collargol is given orally twice daily and irrigations of the renal pelvis are made every two days with a 1.5% solution of silver nitrate. The catheter should reach the pelvis. Daily irrigations of the bladder with boric solution, potassium permanganate or mercuric oxycyanide should also be made. These cases show that pyelonephritis is much commoner in females than in males, that *B. coli* is the usual infecting agent, and that, although the disease usually attacks the right kidney, bilateral pyelitis is also very frequent.—R. CHRISTEN. *Rev. Med. Suisse Romande* (June 25, 1935), 467; through *Brit. Med. J.*, 3899 (1935), 608C. (W. H. H.)

Silver Salvarsan—Use of, in the Treatment of Trichinosis. Six to ten intravenous injections of silver salvarsan make up the usual required treatment. Commencing with 0.05 Gm., the dose is increased with 0.05 Gm. each time until a dose of 0.30 Gm. is reached, then descended, decreasing the dose in the same proportion. The patients regained lost weight, abdominal pains ceased and cheeks again showed healthy color. Apparently this treatment produces a complete cure, since the author reports no need for further medication.—J. RAGANY. *Med. Record*, 142 (1935), 335. (W. H. H.)

Snake Venom as an Analgesic. J. C. R. De Casellas (*Cronica Medica* (March 15, 1935), 214) reports twelve cases of malignant neoplasm treated with cobra venom administered parenterally, and speaks favorably of its analgesic action. He prefers the hypodermic to the intradermal route, as it is not nearly so painful, and is quite, if not more, efficacious.—*Brit. Med. J.*, 1 (1935), 48B. (W. H. H.)

Sodium Hexametaphosphate in Skin Diseases. Sodium hexametaphosphate (compound) in dilute solution is a valuable agent in preventing napkin rashes and reducing their duration in healthy formula-fed babies. It is effective in controlling dandruff and relieving the discomfort of seborrheic dermatitis. It gives marked subjective relief and facilitates spontaneous healing in certain forms of irritative eczematoid dermatitis. Dilute solutions of sodium hexametaphosphate (compound) are non-irritant to the skin of adults and infants.—A. KOENIG. *Med. Record*, 142 (1935), 273. (W. H. H.)

Sodium Morrhuate and Quinine—Value of, in the Treatment of Varicose Veins. The combination of sodium morrhuate and quinine (so far the two best obliterative agents found), in one and the same solution, is believed to be a better sclerosing agent than either of the components used singly. The method of preparation is briefly described and chemical considerations given to show that the alkaloid is in colloidal solution when combined with sodium morrhuate, the soap acting as a dispersoid. Clinical experience during the past year has established the fact that "Moru-quin," the name which the author proposes for this new obliterative solution, meets the requirements for an obliterative agent; namely, it is of low toxicity; produces no pain nor cramps; rarely causes a slough; produces powerful sclerosis; and multiple injections may be given as it possesses bactericidal properties.—F. R. GREENBAUM. *Clin. Med. Surg.*, 42 (1935), 480. (W. H. H.)

Sodium Salicylate—Value of, in the Treatment of Some Diseases Caused by Filtrable Viruses. Sodium salicylate combined with bicarbonate, preferably in form of a syrup, is of benefit in mumps, grippe, infectious rheumatism, scarlet fever and measles.—ANTONIO CARELLI. *Semana méd.* (*Buenos Aires*), 42 (1935), 1599. (A. E. MEYER)

Soluble Chemical Products in Which Iron Is Associated with Vitamin C. Action on Tumors on Intravenous Injection. Three products were prepared: the first, blue indigo from ferric chloride and sodium ascorbate; the second, dark violet from ferrous chloride and sodium ascorbate designated ferroscorbone (I), and the third, yellow in soda media from ferric chloride and the first

oxidation of ascorbic acid designated ferriscorbone (II). (I) and (II) were tested on experimental cancers of the rabbit's testicle. Both caused perilesional edemas that were successfully reabsorbed by allyltheobromine given intravenously. (II) was less active and also caused less intense edemas. Fifty % of the cases were cured and generally the cancerous condition was retarded. Both products were tried clinically on some grave cases of human cancer that were either inoperable or not benefited by radiotherapy. Three cases of cancer of the tongue have been successfully treated with (I), being injected intravenously several times daily for six months. Indications and contraindications are given. This technique is not to be viewed as an indication of a possible prophylaxis or preventive of cancer. The mechanism of the reaction is the stimulation of the fermentation processes resulting from the reversible systems of oxidation and reduction.—FERNAND ORLOING, ALBERT MOREL and ANDRE JOSSERAND. *Compt. rend.*, 201 (1935), 456. (G. W. H.)

Sphagnum and Its Therapeutic Use. 1. Sphagnum should be employed as material for dressing. It is easily obtainable in Russia and its resources are inexhaustible. 2. It possesses hydroscopic and capillary properties and when sterilized it can be applied directly to the wound just as sterile cotton. 3. It should be moistened somewhat before use since when dry its adsorbing properties are decreased considerably. 4. Sphagnum may also be employed as a splint padding because it is light, soft and elastic. 5. It may also be used for filling mattresses and cushions for children. 6. It is best packed for shipping in packages of 10–20 Kg. after it has been compressed. For shipping to distant places it should be packed in larger bales. The quality of sphagnum should be controlled by analytical studies in the laboratories or pharmaceutical dispensaries.—F. I. IVANOV. *Soviets. Pharm.*, 2 (1935), 9. (A. S.)

Staphylococcal Affections—Specific Treatment of. The authors have employed a staphylococcal anatoxin with marked success in certain staphylococcal infections (furunculosis, acne, abcess, etc.). This anatoxin, prepared similarly to diphtheritic anatoxin is non-toxic, and possesses an intrinsic antigenic property with the production of a specific antitoxin and immunity. It should possess a high antigenic power and be administered in sufficient doses. The authors usually give, at intervals of five days, three successive subcutaneous injections of 0.5, 1 and 2 cc. of undiluted anatoxin. Patients tolerate this treatment well; a slight transient fever may occur some hours after the injections, but focal reactions are rare.—G. RAMON, *et al. Presse Med.*, (July 17, 1935), 1137; through *Brit. Med. J.*, 3901 (1935), 710B. (W. H. H.)

Sulphurated Oil. As sulphurated oil Loeper and his collaborators have used mainly the following formula: Flowers of sulphur 0.5 (1.0 Gm.) and oil of sesame 100 cc. Solution occurs slowly on a boiling water-bath and the product is stable. Each cc. contains 0.005 mg. (or 0.01 cg.) of flowers of sulphur. The intramuscular injections in chronic rheumatism are 2 cc. every two or three days. Although the injections are painful and they raise the temperature of the patient to 39° or even 40° the results are interesting: suppleness increasing, mobility becoming greater, and, after some time, diminution of the pain to a point permitting the suppression of sedatives. On the other hand, Michaux and Mollaret have injected the sulphurated oil of sesame into paralytics, and here also improvements have been noted.—UNION PHARMAC. (July 1935), 194; through *J. pharm. Belg.*, 17 (1935), 670. (S. W. G.)

Suprarenal Gland—Treatment of Whooping-Cough with. O. Balfour (*Arch. Pediat.* (March 1935), 143) has treated 192 cases of whooping-cough with desiccated whole suprarenal gland. Fifty-six required no further treatment, thirty-eight were given thyroid, fifty-eight nonspecific proteins, forty pertusis vaccines in addition when the suprarenal substance alone did not control the cough. He recommends whole suprarenal gland. The results obtained with nonspecific proteins and commercial vaccines were equally good and superior to those following thyroid gland.—*Brit. Med. J.*, 1 (1935), 48C. (W. H. H.)

Tannic and Picric Acid in Burns. Modern treatment of burns embraces the following: (1) relief of pain, (2) protection of the denuded areas, (3) application of antiseptics to prevent or combat infection, (4) promotion of healing and repair, (5) combating the shock and fluid deprivation, (6) prevention and treatment of toxemia, (7) prevention of contractures and (8) replacement of tissue by grafting. The least troublesome and most comfortable wet dressing for burns of a limited degree and area is a 1% solution of picric acid because of its protective, antiseptic, astringent and analgesic properties; it stimulates the reproduction of epithelium; its stains are readily removed by applying powdered potassium sulphate for a minute and then washing with soap

or by a paste of magnesium carbonate. The use of a stronger solution increases the danger of poisoning. Tannic acid also has the above properties, brings about the coagulation of devitalized tissue for burned area and by the formation of a tanned crust protects the surface and relieves pain. B. offers the following formula for an ointment for mild burns of limited area: Tannic acid 5%, picric acid 0.5%, benzocaine 2% and ointment base. A cooling effect may be obtained by the addition of menthol and increased thickness by adding zinc oxide or starch.—R. RICHARD BLISS, JR. *Drug and Cosmetic Ind.*, 37 (1935), 177, 184. (H. M. B.)

Termopsis—Use of, as an Expectorant. Recent studies have shown that *Termopsis lanceolata* can be used as an expectorant. This plant has been used empirically by the laity for the treatment of influenza, bronchitis, pneumonia, etc. From the plant proper and from the seeds of termopsis two alkaloids have been obtained: termopsine which is easily crystallized and a liquid termopsidine. The former alkaloid is chemically analogous to other active principles found in various plants belonging to the family leguminosa, for instance, lupanine, metrine, retamine, etc Experimental studies carried out on frogs, mice, rats, rabbits, cats and dogs have shown that the infusions and extracts obtained from the termopsis plant, as well as the crystalline products obtained from this plant, act chiefly on the medulla oblongata and cerebrum, especially on the respiratory, vaso-motor and vomiting centers. Depending on the dose this action is either tonic or stimulating, or depressing and paralyzing. The vomiting observed in cats and dogs is not only of a central, but also of a peripheral origin, that is, it acts not only on the vomiting center directly, but reflexly on the mucosa of the stomach. The direct and reflex action of small doses of termopsis on the vomiting center leads to an increased secretion of the mucosa of the respiratory tract, and acts as an expectorant. On the basis of the studies outlined above one may recommend this substance as a good expectorant and best results are obtained from an infusion given in doses of one tablespoon three times a day.—N. V. VERSHININ. *Soviets. Pharm.*, 4 (1935), 29–31. (A. S.)

Thiobarbiturates. A series of thiobarbiturates has been prepared by condensing derivatives of malonic ester with thiourea. Previous work had shown that the administration of 120 mg./Kg. of the sulphur analogue of 5,5-diethyl-barbituric acid (barbital) to dogs produced sleep followed by death. The authors studied a number of thiobarbiturates and found that they showed promise as sedatives. They produced quiet, natural sleep and were free from side actions and from the after-effects observed following the use of their oxygen analogues. The work is being continued and will be reported in detail.—ELLIS MILLER, JAMES C. MUNCH and FRANK S. CROSSLEY. *Science*, 81 (1935), 615, No. 2112; through *Squibb Abstracts Bull.*, 8 (1935), A-876.

Thyrotoxicosis—Action of Iodine in. The rôle of iodine in the physiology of the thyroids is discussed from theoretical aspects. A study of approximately 575 clinical cases of thyrotoxicosis showed that the administration of iodine to thyrotoxic patients produced a characteristic and specific response which consisted of an amelioration of symptoms and a decline in metabolic rate, and that this response to iodine therapy would occur at any stage of the disease. It appeared, however, that the response had no relation to the duration or direction of progress of the disease, but merely acted as a check on the intensity of its symptoms. These clinical facts were concluded to be consistent with the theory that in thyrotoxicosis the thyroid allows the escape of thyroxine to proceed at an excessive rate, and that the cells of the thyroid hyperfunctioned in consequence. It was suggested that iodine sets up a temporary obstacle to this excessive outflow by checking the leakage of thyroxine from the gland. The authors believe that so-called refractoriness is apparent, not real; that thyrotoxic patients who are unaffected by iodine are those who are already fully iodinized. They believe that iodine response is valuable in the management of toxic goiter, both in treatment and in diagnosis, but its fundamental nature must be familiar if it is to be used successfully. The type of iodine preparation administered is unimportant.—J. H. MEANS and JACOB LERMAN. *J. Am. Med. Assoc.*, 104 (1935), 969. (M. R. THOMPSON)

Trichophytosis. This form of dermatoses—also "Epidermophytosis"—is commonly known as Athelete's Foot, Gym Itch, Athlete's Foot Itch, Jockey Strap Itch, Ringworm of the Foot, Dhobie Itch, etc., is caused by a parasitic fungi and occurs in several forms: (1) *vesicular*, characterized by the formation of little blisters; (2) *scaling*, both occurring on the toes, soles, fingers and palms; (3) *macular:* (*a*) "*Eczema marginatum*" or "Jockey Strap Itch," red, definitely marginated lesions in the groin region, axillæ and beneath the breasts and (*b*) "Tinea circinata," slightly elevated, ring-like patches on neck, face and hands referred to as ringworm on the body; (4) *macerated*, lesions between the toes as an area of clean white sodden tissue of varying degree

of thickness. The following dermatherapeutic agents are listed in order of their descending irritant action: chrysarobin, pyrogallol, mercury bichloride, ammoniated mercury, mercurial ointment, iodine, tar, phenol, ichthyol, sulphur, resorcinol, chlorthymol, salicylic acid, benzoic acid and boric acid. The following formulas are offered (1) *Deek's* Salicylic acid 8%, ammoniated mercury 4, bismuth subnitrate 12, oil eucalyptus 12, hydrous wool fat 64; (2) salicylic acid 5%, benzoic acid 5, chlorthymol 2, propyl *p*-aminobenzoate 5% or benzocaine 10%, vanishing cream base; (3) *Prophylatic Powder.*—Powdered sodium thiosulphate 20%, powdered boric acid 50, purified talc (sterilized) 30%.—A. RICHARD BLISS, JR. *Drug and Cosmetic Ind.*, 37 (1935), 313–314. (H. M. B.)

A Urinary Antiseptic. A new urinary antiseptic "picochrome" was found to act equally well in acid and alkaline urines and that it destroyed coliform bacilli as well as cocci. It is potent in high dilutions, and is tolerated orally, intravenously or locally. The only drawbacks are diarrhœa occasionally, and red discoloration of the urine. The drug is a derivative of orthocresyl, and contains a new radical called diaminopicocoline.—A. RAVICH. *Med. Record*, 142 (April 3, 1935), 343; through *Brit. Med. J.*, 3893 (1935), 326C. (W. H. H.)

Vincent's Angina—Preliminary Evaluation of a Solution of Cerous-ceric Chromate in the Treatment of, and Other Oral Diseases. Cerous-ceric chromate (I) seems to offer a powerful oxidizing agent to the dental profession for the treatment of Vincent's infection. It does not have a persistent stain, is not disagreeable in taste and has no odor. I is prepared by combining at high temperature ceric oxide and chromic acid. The resulting mixture is apparently equal percentages of ceric and cerous chromates. I has been found particularly efficient in combating chronic and acute forms of Vincent's infection, especially in the fusiform stage. Two cases, 1 acute and 1 chronic of 4 year's duration are reported. The disadvantages of the oxidizing agents hydrogen peroxide, perborates, potassium permanganate, mercury salts and chromic acid are discussed.—D. C. LYONS and O. T. COFFELT. *Dental Digest*, 41 (1935), 201; through *Squibb Abstr. Bull.*, 8 (1935), A-1018.

Vinethin—New Hypnotic. Vinethin is characterized by its production of quiet sleep and freedom from production of undesirable side actions.—E. W. DORFFEL. *Deut. Med. Wochschr.*, 61 (1935), 955–957. (H. R.)

Vitamins A and D and Camphor Oil—Use of, in the Treatment of Burns. Local application of 7% camphor oil combined with vitamin A and D given by mouth cause quick disappearance of toxic symptoms produced by burns.—CARLOS O. FRANZETTI. *Semana méd. (Buenos Aires)*, 42, II (1935), 998. (A. E. M.)

NEW REMEDIES

SYNTHETICS

Apothyrin Dragees (Dr. Wander, G. m. b. H., Vienna) contain 0.05 Gm. diiodthyrosin per tablet in packages of 30 dragees.—*Pharm. Post*, 68 (1935), 388. (H. M. B.)

Azochloramid (Wallace and Tiernan Products, Belleville, N. J.) is N,N'-dichloroazodicarbonamidine and an effective stable chlorine germicide for therapeutic use and is recommended for dressing, packing or irrigating infected wounds and cavities.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Dibroluur (Soc. Chem. Ind. Katwijk, Netherlands) is bromodiethylacetylurea in 0.5-Gm. tablets.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Isopur Tablets (F. J. Kwizda, Korneuburg) are marketed in packages of 10 tablets of 0.15 Gm. dioxyanthraquinone.—*Pharm. Post*, 68 (1935), 388. (H. M. B.)

Natriphene (Natriphene Co., Detroit) is a white crystalline powder, sodium 2-hydroxydiphenyl with a phenol coefficient of 17, 1/6 as toxic as phenol, soluble in water, alcohol and acetone and is used as a disinfectant, antiseptic, fungicide and deodorant.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Neonal Sodium (Abbott Laboratories) is the sodium salt of butyl ethyl barbituric acid, and is claimed to be about three times as active as barbital.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Phenyl Aspriodine (W. Martindale, London) is acetyl iodosalol and is recommended for use as an intestinal and urinary antiseptic.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Rosidol (Leopold Laseron, Paris) is 2,6-dimethyl-octen(2)ol (8).—*Riechstoff-Ind. Kosmetik*, 10 (1935), 160. (H. M. B.)

SPECIALTIES

A. M. O. Antiseptic Solution (Boots Pure Drug Co., Nottingham) is a solution containing amyl-*m*-cresol for a mouthwash, dental antiseptic or gargle.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Abszessin (Rego A. G., Schwanden) are tablets containing 0.1 Gm. morphine (1 Gm. opium or 0.5 Gm. of extract) with rice starch and cocoa powder.—*Pharm. Monatsh.*, 16 (1935), 135. (H. M. B.)

Adol Potion (Adol Laboratory, Lyon) contains ammonium bromide 5 Gm., pyramidon 3 Gm., caffeine citrate 0.15 Gm., ammonium iodide 0.5 Gm., sparteine sulphate 0.1 Gm., extract of valerian 0.8 Gm., excipient to form a liqueur 20 Gm. One to 5 dessertspoonfuls are taken per day to combat pain.—*Bull. Ch. Synd. Pharm. Seine* (July 1935); through *J. pharm. Belg.*, 17 (1935), 710. (S. W. G.)

Ambinon (Organon, Ltd. Netherlands) is a purified extract of the anterior lobe of the pituitary body, of which it contains the active constituents. The thyreotrope hormone of the anterior lobe of the pituitary body stimulates the activity of the thyroid gland which is coupled with an increase in elementary changes and with the iodine content of the blood. For standardization of the guinea-pig unit, half of the daily dose which if injected intraperitoneally in young guinea-pigs (150–200 Gm.) reaches or exceeds a fixed epithelial development of the thyroid gland, is selected. This unit is about equal to the Junkmann and Schoelier unit, although the latter is somewhat less sharply defined. Each ampul of Ambinon contains 25 guinea-pig units of thyreotrope hormone. The gonadotrope hormone of the anterior lobe of the pituitary body possesses a strongly stimulating action on the ovary. It promotes ripening of the follicles and the development of the corpus luteum. Recent research seems to show that the ripening of the follicles is caused by two components of the gonadotrope hormone, both of which are present in Ambinon. Each ampul of Ambinon contains 5 rat units of gonadotrope hormone. Still another important property of the gonadotrope hormone is that it increases the action of the gonadotrope hormone of the urine of pregnant women (pregnyl). In order to facilitate the simultaneous administration of ambinon and pregnyl, the ambinon ampuls are packed with an equal number of pregnyl ampuls. The latter is in powdered form which is put into solution for use, since the solution is unstable and has poor keeping qualities. Among other things Ambinon is employed in habitual abortion, infantile and primary amennorrhœa, in insufficient development of the testes and in disturbances of the thyroid function or of metabolism. In general, one is directed to inject one ampul every day or every other day, usually not combined with pregnyl.—*Pharm. Weekblad*, 72 (1935), 1040. (E. H. W.)

Amos Throat Water (Dr. O. Seiderer, Germania Apothecary, Dresden) is a solution of aluminum chloride with the addition of perhydrol used in throat inflammations, grippes, etc.—*Pharm. Monatshefte*, 16 (1935), 135. (H. M. B.)

Antagosin (Behringwerke, I. G. Farbenindustrie A.-G., Leverhusen a. Rh.) is a lactic acid bacterial preparation for local inflammatory treatment due to developed bacterial infection. The preparation contains antagonistic-acting lactic acid bacteria which due to its biological activity hinders the growth of pathogenic bacteria. The preparation is simultaneously used for disinfection and astringency, but rinsing must be unconditionally avoided to prevent any antagonistic action. The preparation is marketed in sealed dark bottles which are shaken before use and stored in a cool place.—*Pharm. Zentralh.*, 76 (1935), 536. (E. V. S.)

Antetestin (Gedeon Richter, London) is a combination of gonadotropic hormone and testicular extract sold as tablets or ampuls with a dose of 1–2 tablets 3 times a day or 1 intramuscular injection.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Anthesin (Sandoz Chemical Works), the N-diethyl leucinol ester of *p*-aminobenzoic acid, is a local anesthetic and is used for infiltration anesthesia and spinal anesthesia in conjunction with adrenalin solution.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Anthrex Suppositories (Sagitta Works G. m. b. H., Munich), against gout, rheumatism, and arthritis, contain Investin (a molecular combination of diethylbarbituric acid, amidophenazon, phenacetin and caffeine citrate) and phenylquinolincarbonic acid.—*Pharm. Monatshefte*, 16 (1935), 135. (H. M. B.)

Argyrophedrine (Aron, Suresnes) contains ephedrine hydrochloride 0.3 Gm., Argyrol Barnes of 0.3 Gm., physiologic serum 30 cc. It is used as a nasal spray or in the form of drops.—*Bull. Ch. Synd. Pharm Seine* (May 1935); through *J. pharm. Belg.*, 17 (1935), 572. (S. W. G.)

Arthrorheumin (Kaiserdamm- Apothecary, Charlottenburg) occurs in ampuls with the following composition: Formic acid 0.001 Gm., silicic acid anhydride 0.0001 Gm., phosphorous 0.0000166 Gm., arsenic 0.0000166 Gm., strychnine 0.0000125 Gm., water *q. s.* to 1 Gm. and is used for gout, chronic muscular rheumatism, lumbago, etc.—*Pharm. Monatsh.*, 16 (1935), 135. (H. M. B.)

Azoule Calcium L-B (Allen and Hanburys, London) is a solution of calcium lactobionate for the parental administration of calcium in tetany, etc.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Binæmon (Organon Ltd.) consists of liver powder and powdered hog stomach. It is a preparation containing anti-anæmic factors of liver and hog stomach. The intrinsic factor of Castle as well as the extrinsic factor, shown by recent researches that the mucous membrane of the stomach should be combined with liver, are present in this preparation. The patient can take Binæmon at meal time. Ten–15 grams are sufficient in most cases to regenerate the blood. Clinical research must still show the value of this preparation in convalescence. It has already been shown that patients who have returned to a normal blood count with liver injections, have with this preparation retained the erythrocyte count and patients seriously ill have had an increase in red blood corpuscles.—*Pharm. Weekblad*, 72 (1935), 1041. (E. H. W.)

Borhamyl (H. Martinet, Paris) consists of salicylic acid 0.1 Gm., boric acid 5 Gm., concentrated distillate of *Hamamelis virg.* 50 Gm., distillate of plantain 50 Gm., distillate of melilot 50 Gm., distilled water enough to make 250 Gm. The solution is isotonic with the tears and may be used as an eyewash.—*Bull. Ch. Synd. Pharm. Seine* (May 1935); through *J. pharm. Belg.*, 17 (1935), 572. (S. W. G.)

Calbrolact (Chas. Zimmermann and Co., London) is a combination of calcium bromide (33%) and calcium lactate (66%) with a dose of 2–6 tablets daily.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Camphochin (Karl Max Besch Pharmaceutica G. m. b. H., Berlin-Wilmersdorf) is a sterile ethereal oil solution containing 3% of basic quinine and 2.5% of camphor. It is used as a painless intramuscular or intragluteal injection in bronchopneumonia, bronchiectasis, etc.—*Pharm. Zentralh.*, 76 (1935), 553. (E. V. S.)

Canfidrol Ampuls (Laboratory Farmacol. Reggiand, Corregio, Italy) contain calcium camphosulphonate and ephedrine hydrochloride in packages of 6 × 1 cc. and 3 × 5 cc. ampuls and as packages of 15 cc. of solution.—*Pharm. Post.*, 68 (1935), 327. (H. M. B.)

Certosed (Sagitta-Werk G. m. b. H., München) is prepared from the extracts of valerian, viscum and opium, tincture of strophanthus and chloral hydrate. It is used as a sedative and hypnotic for nervous disorders and worries, especially for heart neurotics.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

Cholotonon (Chem. Fabrik Promonta G. m. b. H., Hamburg 26) is prepared from an extract of the liver and gall bladder systems. It is marketed only in ampuls and used in disorders of the liver and in the gall bladder ducts.—*Pharm. Zentralh.*, 76 (1935), 430. (E. V. S.)

Clabin (Sagitta-Werk G. m. b. H., München), a corn and callous remedy, is a combination of salicylic collodion, resorcinol collodion and salicylic acid.—*Pharm. Zentralh.*, 76 (1935), 536. (E. V. S.)

Codalgin (S. Ballin, Frankfurt a. M.) tablets contain in each codeine phosphate (0.01 Gm.), caffeine (0.05 Gm.), phenacetin (0.25 Gm.) and phenyldimethylpyrazolone (0.25 Gm.). It is used for grippe, migraine, head and toothaches, and rheumatism.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

Corron Tablets (Abbott Laboratories) are a convenient source of iron and copper and are recommended for preventing nutritional and secondary anemias.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Cortical Fluid (Fa Istituto Opoterapico, Pisa) is the aqueous extract of fresh suprarenal cortical substance in packages of 40 cc. and ampuls in packages of 6 × 2 cc.—*Pharm. Post.*, 68 (1935), 327. (H. M. B.)

Cortidyn (Chem. Fabrik Promonta G m. b. H., Hamburg) is a standardized kidney extract

prepared by a special process from the suprarenal cortex of freshly killed animals. One cc. of the extract contains 5 corticodynamic mouse units. A mouse unit dose of the extract will cause an increase in weight of a young desuprarenalized mouse from 9 to 11 Gm. in seven days and the animals should be alive in 80% of the test cases eight days after the operation. It is used intramuscularly or subcutaneously in Addison's disease, Basedow's disease, infectious diseases and psoriasis.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Cumasina Preparations (Angelmi-Werke G. m. b. H., Leipzig), based on the system of silver antisepsis and chlorine disinfection of Kruse-Fischer, contain oligodynamic bactericides due to the finely distributed and effectively activated non-poisonous Cumasina silver obtained by an electric current. *Cumasina liquid* is used for instillations, spraying, inhalations, gargling, wounds or ulcers, abscesses, mucous membranes, etc.; *Cumasina liquid forte* for gonorrhea; *Cumasina liquid angina* for the treatment of angina; *Cumasina powdered I* for dishydrosis and hyperhydrosis, *II* for *pruritis senilis*, *III* for eczema and burns, *IV* for ulcers and abscesses of various types or stomatitis; *Cumasina ointment* for frost-bite and burns of all forms; *Strong Cumasina ointment* for the treatment of *ulcus cruris; Cumangin troches* for angina and inflammable conditions of the mouth and throat; *Cumadiph tablets* for diphtheria; *Cumacarbo tablets* for intestinal infections, enteritis, typhus and dysenteria; and *Cumanetten* as a prophylactic for mouth, throat and larynx disinfection.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Curacne Tin Compound Tablets (Cooper Laboratory, Watford, Herts.) consists of tin oxide and metallic tin in a suitable base for the treatment of staphylococcic diseases.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Darmo-Stop Tablets (Lab. Farmacol. Reggiand., Corregio, Italy) in packages of two tablets contain 0.50 Gm. basic calcium aluminum tannate in chocolate.—*Pharm. Post*, 68 (1935), 327. (H. M. B.)

Davitamon A-D (Organon Ltd.) is now obtainable in vials (dragees) each vial containing 1500 International Vitamin A units and 1000 International Vitamin D units. The oily solution contains 5000 International Vitamin D units and 6000 International Vitamin A units per cc. and corresponds to about 5 dragees in Vitamin D content. The new form should be attractive for children's use and has the advantage of eliminating the loss incurred by dropping from the bottle. It is found on the market in boxes of 24 and flasks of 100.—*Pharm. Weekblad*, 72 (1935), 1041. (E. H. W.)

Dermichthol (Ichthyol Company) contains *Leukichthol* with phenol, salicylic acid, terpenes and *Unguentum Basilicum*. It is used in pyodermitis, abscesses of the sweat glands, phlegmones, etc.—*Pharm. Weekblad*, 72 (1935), 1041. (E. H. W.)

Digilanid (Sandoz, Basel) contains the active crystalline constituents from *Digitalis lanata* recently described by Stoll and Kreis. It contains three glucosides from this digitalis species. According to Rothlin it may be considered as a crystalline infusion of digitalis in which the active constituents appear in unaltered form. It is found upon the market in 0.5% solution, in tablets containing 0.25 mg. of glucosides and in suppositories with 0.5 mg. According to experiences at the University clinic at Leipzig, it gives satisfactory results in cases for which in the past a combination of strophanthin and salyrgan had been used.—*Pharm. Weekblad*, 72 (1935), 1041. (E. H. W.)

Duroxyl Tablets (Kronik and Edels, Vienna) in packages of 10 tablets to 1 Gm. consists of hydrogen peroxide in solid form (carbamide + 30% H_2O_2).—*Pharm. Post*, 68 (1935), 387. (H. M. B.)

Dysmenural is a combination of Uzara and phenyldimethylpyrazolon. It is found on the market in tubes of 10 tablets each weighing 0.7 Gm. It is used to diminish labor pain, and in spastic dysmennorrhœa. The dose is 1 tablet three times a day.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Eciphin is the name given by Nourypharma Ltd. (Deventer) to ephedrine hydrochloride. It is placed on the market by this firm in tablets containing 0.05 Gm. of the alkaloid and in ampuls containing 1 cc. of a 5% solution.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Eciphin-Hœststroop (Nourypharma, Ltd.) is a thyme syrup containing 2.5 mg. of Eciphin (ephedrine hydrochloride) per cc. The syrup is given in by teaspoon and is used in whooping-cough, and to reduce the cough stimulus in coughs due to colds.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Eciphin-Neusglei (Nourypharma Ltd.) is a nasal ointment (jelly) which contains ephedrine menthol and eucalyptol. It is put up in tin tubes having a nozzle to facilitate the application of the jelly in the nasal cavity. It is used for head colds.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Emenagon (Chem.-pharm. Fabrik Progreda G. m. b. H. Köln) contains the extracts of *Pareiræ brava*, petroselinum and cascara, *Crocus elect.*, senna leaves, myrrh and iron lactate. It is indicated in amenorrhea, dysmenorrhea, and menstrual and climacteric complaints.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

Epokan Merck contains in each tablet or ampul 0.03 Gm. of pyrazine carbonylhydrazide, 0.03 Gm. of *l*-ephedrine cumarin carbonate, and 0.0002 Gm. of pseudotropine benzilic hydrochloride. It is indicated for use in asthma and other asthmatic conditions. The dose is 2–3 tablets or 1–2 ampuls subcutaneously or intravenously depending upon the severity of the case.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Eroxan-Noury (Nourypharma, Ltd.) is a 25% magnesium peroxide identical with similar products found on the market. It is prescribed in 1–2 teaspoonful doses for stomach disturbances.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Eurysin (Hamburger Serumwerk G. m. b. H., Hamburg 39), a preparation useful in nonspecific immunity therapy, contains the albuminoid and lipoid substances of apathogenic bacteria made soluble by a special ferment. The preparation is intramuscularly or suitably intragluteally injected for grippe, pneumonia, sepsis, erysipelas or furunculosis.—*Pharm. Zentralh.*, 76 (1935), 536. (E. V. S.)

Ferfersan (Dr. Oehren & Co., chem.-pharm. Laboratorium, Berlin) is an iron and calcium combination with a fish liver extract which has been specially prepared from the blubber-free portion of the fish liver. It is used in cases of anemias, chlorosis, scrofulosis, rickets, etc.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Folinerin (Schering-Kahlbaum) is a glucoside obtained from the leaves of *Nerii Oleandri*. This glucoside crystallizes from dilute alcoholic solution in prisms. It rotates the plane of polarized light to the left, has a molecular weight of 522 and a possible formula $C_{30}H_{46}O_8$. It acts in the same way as digitoxin, although the action is of longer duration and it does not possess the cumulative action of digitalis. The cat unit according to Hatcher-Magnus is 0.24 mg. per Kg. and by intravenous injection 0.12 mg. One mg. corresponds to about 1200 frog units.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Gonacrine Ampuls (Dr. Fritz Zuckerhandl, Vienna) is marketed in packages of 3 ampuls of 5 cc. of 2% aqueous solution of 3,6 diamino-10-methylacridin hydrochloride or 6 ampuls of 5 cc. of 0.50% solution.—*Pharm. Post*, 68 (1935), 387. (H. M. B.)

Grumonal (Sagitta-Werk G. m. b. H., München) is a specially prepared taseteless and odorless castor oil.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

Gynichtol (Ichthyolgesellschaft, Cordes Hermanni & Co. Hamburg) is a tampon-solution containing antipyrine, potassium iodide, glycerin and Leukichthol.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Hédéryl (Lettry Laboratories, Paris) consists of fluidextract of ivy 10 Gm., essence of origanum 20 drops in 100 Gm. It is applied with friction against cellulitis.—*Bull. Ch. Synd. Pharm. Seine* (July 1935); through *J. pharm. Belg.*, 17 (1935), 710. (S. W. G.)

Hepastab (Boots Pure Drug Co., Nottingham) is a concentrated sterile solution of the antianemic factor of mammalian liver used for pernicious anemia.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Hepatopson forte (Chem. Fabrik Promonta G. m. b. H., Hamburg) is a highly concentrated liver extract suitable for intramuscular injection. Two cc. of the preparation has the equivalent effect as 5 Kg. of fresh liver taken orally. It is used in severe cases of Biermer's anemia.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Hepatose (Chemische Werke, Pirmasens) contains the active principles of the liver and gastric tract. It is indicated for use in anemias, and disorders of the stomach, liver and gall bladder.—*Pharm. Zentralh.*, 76 (1935), 430. (E. V. S.)

Hormotone (G. W. Carnrich Co.) is a combination of the tonic hormones of thyroid, pituitary, suprarenal and gonads and is used for neurasthenia, etc.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Hypotan (Anglo-French Drug Co., London) contains the bromide salts of synthetic choline derivatives with chloral and is used as a vasodilator for the relief of arterial spasms.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Incretone (G. W. Carnrich Co.) is a bitter tonic.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Iod-Turipol (Drs. R. and O. Weil, Frankfurt) is composed of Turipol (terpene and pinene containing paraffin oil) and 6% iodine in organic combination is used in the nose by means of a special dropping pipette for chronic atrophic catarrh of the nose and throat.—*Pharm. Monatshefte*, 16 (1935), 136. (H. M. B.)

Kitano (Kitano Co., London) consists of ammonium sulphoichthyolate 2 parts, zinc hydroxycarbonate 6, adeps lanæ 6, flores. zinci 24, liniment calcis 66 and is used for the treatment of skin disorders.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Kurabo (Eupharma, Passau) is an analgesic and antipyretic in the form of tablets which contain acetanilid 0.10 Gm., dimethylamidoantipyrin 0.10 Gm., caffeine 0.05 Gm., phenacetin 0.25 Gm. per tablet.—*Pharm. Monasthefte*, 16 (1935), 137. (H. M. B.)

Kynerval (Kyffhaüser-Laboratorium, Bad Frankenhausen), a nerve sedative, contains calcium bromate, extract of valerian, humulus, frangula, peppermint, iron citrate and carrot.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

L. P. C. Proderma Soap (Deutsche Lupocid-Gesellschaft Meinzer and Peter, Karlsruhe (Baden)), for eczema, contains as active ingredients lecithin and chlorcarvacrol.—*Pharm. Zentralh.*, 76 (1935), 536. (E. V. S.)

Laccodermes (Lab. Brisson) is a water-soluble "semi-fatty" varnish of which the excipient is an ointment of casein. It forms a supple, elastic and resistant coating on the epidermis, and may be used with dermatologic preparations.—*Bull. Ch. Synd. Pharm. Seine* (May 1935); through *J. pharm. Belg.*, 17 (1935), 572. (S. W. G.)

Lebergranulat (Merck, Darmstadt), for diet therapy, contains the active principles of liver prepared and concentrated by a special fermentative process so that a small dose would have the same effect as the use of a large quantity of fresh liver or dried liver preparations. The small dose of the preparation is easily taken so that continual administration does not overtax the patient. It is used for Bremer's anemia and for pernicious anemias.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Lecitrapp (Dr. Schmidsche Apotheke, Inhaber Otto Trapp, Tübingen) contains the purest colloidal egg lecithin, sodium biphosphate, organic iron with copper as a catalysator, dextrose and plant extracts. It is marketed in liquid form, or in tablets with the addition of cola. It is used as a nerve tonic, for anemias, and as a regenerative especially for the heart, nerves, exhaustion and anemia.—*Pharm. Zentralh.*, 76 (1935), 430. (E. V. S.)

Leukichthol (Ichthyol-Gesellschaft, Cordes Hermanni & Co., Hamburg) is a new, almost colorless Ichthyol. It is almost odorless, dark in substance but light in thickness. Differences in therapeutic value are not given.—*Pharm. Weekblad*, 72 (1935), 1042. (E. H. W.)

Linimentum Ribbeck (United Laboratories Ludovica, Ludwig Sell, Munich), for acute and chronic articular rheumatism, neuralgia, etc., is a liniment of salicylic acid, methyl salicylate, capsicin and oils of eucalyptus, salvia, mace, rosemary, juniper and camphor in solution.—*Pharm. Monatsh.*, 16 (1935), 121. (H. M. B.)

Litin-salve (Togal Works of Gerhard F. Schmidt, Munich), useful against acute and chronic articular and muscular rheumatism, gout, neuralgia, etc., contains oil turpentine, solution of amyl salicylate, acid salicylic, camphor, menthol and adeps lanæ.—*Pharm. Monatsh.*, 16 (1935), 121. (H. M. B.)

Lorisan (Chem.-Pharm. Laboratories of Eduard Lyse, Dresden) is sold as Lorisan I (mild) and Lorisan II (strong). (I) consists of anhydrous lanolin, zinc oxide, liquid petrolatum, rosemary oil, formic acid, gallic acid, arnicin, matico oil, judlandin, oil of chamomile, volatile oils and various glucosides and is used for inflammations of the skin, furunculosis or carbuncles, muscles, tendons, wounds, etc.—*Pharm. Monatsh.*, 16 (1935), 121. (H. M. B.)

Luteal Ampuls (Fa Istituto Opoterapico, Pisa) is the aqueous extract of corpus luteum and is sold in packages of 6 ampuls of 1 cc.—*Pharm. Post*, 68 (1935), 327. (H. M. B.)

Luteolipex (Sanabo-Chinoin, Fabrik chem.-pharm. Präparate G. m. b. H., Wien XII) is a corpus luteum hormone in oil solution standardized according to the method of Corner. Each 1-cc.

ampul contains ten clinical units. It is used as a preventative in habitual abortion and to control the bleeding of pregnancy.—*Pharm. Zentralh.*, 76 (1935), 460. (E. V. S.)

Magsalyl (A. Roux, Ivry-sur-Seine) is a physiologic solution of sodium salicylate in biologic equilibrium with the sodium, calcium, potassium and magnesium ions of the blood serum. It contains sodium salicylate 0.5 Gm., magnesium chloride 0.05 Gm., magnesium hyposulphite 0.075 Gm., excipient enough to make 5 cc.—*Bull. Ch. Synd. Pharm. Seine* (June 1935); through *J. pharm. Belg.*, 17 (1935), 672. (S. W. G.)

Map (Dr. George Henning, Berlin-Tempelhof) is crystallized myo-adenosine phosphoric acid and is said to be useful in overcoming ischemia and anoxemia of the heart muscle, relieves spasms of the peripheral vessels and is suggested for angina pectoris and gangrene; 1–3 cc. may be given by intramuscular injection daily.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Mastal-liquid (Fa Istituto Opoterapico, Pisa) is the aqueous extract of fresh mammary glands in packages of 60 cc. and also sold in packages of 12 ampuls holding 2 cc.—*Pharm. Post*, 68 (1935), 327. (H. M. B.)

Medulka Frostbite Ointment (Dr. W. Dernbach, Apotheker, Bad Salzschlirf) is a mixture containing camphor, larch terpentine, ethyl *p*-aminobenzoate, ointment of altheæ, and bone marrow.—*Pharm. Zentralh.*, 76 (1935), 353. (E. V. S.)

Menotheosan Dragees (Dr. Wander G. m. b. H., Vienna) consist of 0.10 Gm. bromcalciumtheosan, 0.02 Gm. sodium nitrite, phenylethylbarbituric acid, papaverine, dioxyanthraquinon and ovarium in packages of 60 dragees.—*Pharm. Post*, 68 (1935), 387. (H. M. B.)

Mercolloid Ampuls (Biochemischen Laboratories A. G., Locarno) contains 0.01 Gm. colloidal mercury sulphide and is given for luetic and paraluetic disorders especially those resistant to arsenic and bismuth and also for psoriasis.—*Pharm. Montash.*, 16 (1935), 121. (H. M. B.)

Muganthem (Chuit, Naef u. Cie, Genf) is a maybell perfume used for cologne waters, skin creams and powders.—*Riechstoff-Ind. Kosmetik*, 10 (1935), 160. (H. M. B.)

Myrtazeenol Reinecke (Fabrik für pharm. Spezialitäten, Homöopathie und Biochemie G. A. Reinecke, Hannover); a preparation containing 80–85% of oil of eucalyptus, is used either internally or externally for rheumatism, gout, ischias, asthma, headache or coughs.—*Pharm. Zentralh.*, 76 (1935), 536. (E. V. S.)

Nembutal (Abbott Laboratories), a sedative, hypnotic and antispasmodic is offered as an elixir in 4-oz. and 1-pint bottles and in suppositories containing 2 grs.—*Drug and Cosmetic Ind.*, 37 (1935), 263. (H. M. B.)

Nerosol C (L. Givaudan u. Cie., Genf) is a new cheap form of nerol especially good as a perfume for cologne waters.—*Riechstoff-Ind. Kosmetik*, 10 (1935), 160. (H. M. B.)

Nervanon (Fabrik pharm. Präparate A. Zwintscher, Heidelberg) contains valerian, hops, *Viscum album*, and a dilution of strophanthus (D 3). It is used for nervous disturbances of various types, and for climacteric conditions such as the pains during menstruation.—*Pharm. Zentralh.*, 76 (1935), 537. (E. V. S.)

Nouricalpœder (Nourypharma Ltd., Deventer) is a mixture containing 25% calcium gluconate, 25% dry extract of malt and 50% sugar. It is a dietic preparation which is principally used in children's porridge to promote calcium assimilation. This is brought about especially by the addition of the extract of malt. A teaspoonful is used to a dish of porridge. For the regular administration of calcium *Nourical chocoladehagelslag* and *Nourical muisjes* (both confections) are found on the market, and serve as pleasant vehicles for children.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Nouricaltabletten (Nourypharma Ltd., Deventer) are tablets containing 1.5 Gm. of calcium gluconate. They are flavored with oil of peppermint which makes the administration of the calcium preparation more pleasant.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Novalgin-Quinine (Bayer, I. G. Farbenindustrie Aktiengesellschaft, Leverkusen), sold as tubes of 10 dragees and containers of 100 dragees, contains 0.15 Gm. of sodium phenyldimethylpyrazolonmethyl aminomethane sulphonate and 0.1 Gm. of the quinine salt of the same acid (= 0.05 Gm. quinine) in each dragee. It is given by mouth 1–2 dragees 1–3 times a day for grippes, pains of all kinds, joint and muscular rheumatism and neuralgias. *Apoth. Ztg.*, 50 (1935), 496. (H. M. B.)

Nymphosan-Peru-Gummibonbons (Mymphosan A. G., Munich) contain balsam peru 1.6%, anæsthesin 0.8% and sugar, and is used for colds and disorders of the air passages.—*Pharm. Monatsh.*, 16 (1935), 121. (H. M. B.)

Oxyascarin Tablets (Brandt and Co., Halle) is marketed in packages of 10 sticks containing 0.0075 Gm. aluminum subsantoninate, triacetyl-diphenol-isatin and aluminum subacetate.—*Pharm. Post*, 68 (1935), 387. (H. M. B.)

Oxykin Cream. A formula is cited for a contraceptive cream recommended by Dr. J. H. Leunbach. This is composed of oxyquinoline sulphate, 1 Gm. and *Cremor ad explorationem*, 99 Gm.—ANON. *Arch. Pharm. og Chemi*, 42 (1935), 451. (C. S. L.)

Pallida Antigen (Sächsischen Serum Works A. G., Dresden) is a Pallida-pure culture extract serving for the serological detection of lues.—*Pharm. Monatsh.*, 16 (1935), 122. (H. M. B.)

Pantigal Plugs (Fa. Beiersdorf and Co., Vienna) are sold in packages of 3, 6, 12 pieces, each containing 0.30 mg. lanadigin glucoside from digitalis lanata.—*Pharm. Post*, 68 (1935), 388. (H. M. B.)

Paralact Tablets (Cooper Laboratory) consist of parathyroid and calcium lactate to be used in cases of defective calcium metabolism.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Paspat (Luidpoldwerk, Munich) is a mixture of polyvalent antigen with powdered posterior lobe of pituitary body. It is used as a vaccine in the treatment of bronchial asthma. Each ampul contains 0.2 cc. Paspat, the unit for one treatment. With children the quantity is cut in half. Six skin scratches are made on the upper arm with a lancet. These should be $^1/_2$ to $^3/_4$ cm. long and about $^1/_2$ mm. deep. Some blood may appear. Two–3 drops of the Paspat is then well rubbed into the area with a glass rod and the remainder slowly added from a syringe. After drying, a bandage is applied. Ten treatments covering 12–14 days are usually used.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Pelargon (Deutsche A. G. für Nestle Erzeugnisse, Berlin-Tempelhof) is a powdered lactic acid whole milk without the addition of carbohydrate. It is prepared from first class fresh milk obtained from cows in the Swiss Alps with the addition of 0.5% of a pure lactic acid. It is used to prepare milk for infants and children as the normal nutrient or to supplement the mother's milk, and as a dietetic food for various convalescences, eczema and vomiting.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Pep-Acid-tabletten (Nourypharma, Ltd., Deventer) contain 0.4 Gm. betaine hydrochloride and 0.1 Gm. pepsin. They are used after meals in indigestion.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Perboraat Noury (Nourypharma, Ltd., Deventer) is sodium perborate flavored with peppermint oil. It is packed in square bottles and is used in place of tooth powder, tooth-paste and mouth washes. A small quantity of the preparation may be placed on the tooth brush, or may be dissolved in water.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Peremesin (von Heyden Chemical Co.) is a colloidal cerium oxalate preparation used to prevent vomiting. It is used as a preventative for sea-sickness and to correct the tendency toward vomiting in pregnancy. One–2 tablets.—*Pharm. Weekblad*, 72 (1935), 1043. (E. H. W.)

Perinkret (Chem. Fabrik Dr. George Henning, Berlin-Tempelhof) is a peristaltic hormone which is obtained as the neohormonal from the spleen. It is a much concentrated preparation representing in 2 cc. the therapeutic action of about 20–30 cc. neohormonal and is used against chronic constipation and intestinal paralysis.—*Pharm. Monatsh.*, 16 (1935), 122. (H. M. B.)

Pertugen Ointment (Anhaltisches Serum-Institut G. m. b. H., Berlin-Dessau) is an aluminum chlorate in a specially prepared ointment base having a high water-absorbing power. The action of the preparation depends upon the liberation of nascent chlorine and oxygen, whereas the aluminum salt exerts its anti-inflammatory and antiseptic action. It is used for skin burn, frostbite, leg ulcers, hemorrhoids, etc.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Pertussin Troches (E. Taeschner, chem.-pharm. Fabrik, Potsdam) contain as active ingredients Pertussin balsam, Extract Thyme Tæschner, ephedrine hydrochloride and extract lobelia. The troches for children contain Pertussin balsam, quinine dihydrochloride carbamide, phenylethylbarbituric acid and a small amount of powdered extract of belladonna. They are used for pertussis, bronchitis, bronchial asthma, etc.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Perviscal (C. Sorger, Apotheker, Wolmirstedt, Bez. Magdeburg) is prepared from fresh plants of *Viscum album*, drug extracts of celery seed, *Auriculus muris*, adonis and homeopathic doses of vanadium chloride and cerium oxalate. It is indicated for use in arteriosclerosis and similar conditions.—*Pharm. Zentralh.*, 76 (1935), 554. (E. V. S.)

Pharyngil (Sächsischen Serum Works A. G., Dresden) contains neo-pyocyanase 15%, water-free glycerin 80% and different anesthetics 5% and is used for the quick removal of irritations and inflammations of the throat and the upper air passages by spraying.—*Pharm. Monatsh.*, 16 (1935), 122. (H. M. B.)

Phosoforme Drops (Drouet et Plet, Paris) contain *o*-phosphoric acid and 30% ethyl ester of phosphoric acid. An ethoxy determination shows that the ester consists of 19.34% monoethyl derivative and 11.82% of the diethyl derivative.—*Pharm. Monatshefte*, 16 (1935), 138. (H. M. B.)

Physormon-Schnupf Powder (Chem. fabrik Promonta G. m. b. H., Hamburg) is a powder containing in 1 Gm. 100 Voegtlin units of posterior pituitary substance for the rapid use in diabetes insipidus.—*Pharm. Monatsh.*, 16 (1935), 122. (H. M. B.)

Pigofusin (Pharm. Industrie-Gesellschaft, Offenbach) is an isotonic sterile convenient liquid for infusions and injections and has a salt content similar to that of sea water.—*Pharm. Monatshefte*, 16 (1935), 122. (H. M. B.)

Polymalan (Dr. Sidler and Co., G. m. b. H., Freiburg) is an alcoholic-ether boroglycerin salicylic acid ester solution with compound tincture of capsicum and balsam peru used for rheumatism and gout. For internal use it is sold as capsules.—*Pharm. Monatshefte*, 16 (1935), 122. (H. M. B.)

Prophylactic Kit. A venereal prophylactic kit designed by the Danish Apothecaries Society is described. Three grams of *Sol. Argenti Nitratis prophylact.* and a 10-Gm. tube of *Unguentum Calomelanos prophylacticum* are provided together with means of application.—ANON. *Arch. Pharm. og Chemi*, 42 (1935), 451. (C. S. L.)

Proveinase Midy (Midy Works, Vienna) is a tonic for the veinous walls, and is used in the form of tablets in phlebitis, œdemas, hemorrhoids, circulatory disturbances. For acute cases doses of 3–6 tablets are given daily; for chronic cases 2–4 tablets daily.—*Pharm. Monatshefte*, 16 (1935), 123. (H. M. B.)

Prusenilla Powder (Hoffman and Köhler, Altona) to combat *pruritis senilis* and dyshidrose consists of salicylic terpene esters finely divided into an antiseptic powdered substance.—*Pharm. Monatshefte*, 16 (1935), 123. (H. M. B.)

Pudan Head and Foot Powder (Scott & Bowne G. m. b. H., Kosmetische Abteilung, Frankfurt a. M.) is a specially prepared spongy talc, the small particles of which are coated with a skin-related fat which is easily reabsorbed from the skin. The powder also contains salicylic acid.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Puerperalfieber-serum (Concentrated Streptococcus Serum) ("Behringwerke," I. G. Farbenindustrie, Aktiengesellschaft. Leverkusen) in ampuls of 25 cc., is administered intramuscularly in 50-cc. doses for severe cases of puerperal sepsis.—*Apoth. Ztg.*, 50 (1935), 365. (H. M. B.)

Purosan (Purosan Nährmittel G. m. b. H., Leipzig C 1) is a dried beer yeast for the prevention and treatment of diseases. It is rich in vitamin D due to intensive ultraviolet irradiations. The preparation is taken internally for skin diseases, diabetes, scrofula, tuberculosis, anemia, rickets and chronic women's diseases, and externally where fluorine is in use.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Pyrestæsin (Synochem-Präparate-Gesel., b. H., Berlin) is an analgesic in rheumatism and neuralgias and consists of a combination of molecular quantities of ethyl ester of aminobenzoic acid and dimethylaminophenyldimethylpyrazolon (about 2:3).—*Pharm. Monatshefte*, 16 (1935), 123. (H. M. B.)

Racefo Powder (Dr. Nussbaum and Co. Chem. Fabrik, Wurzburg) for asthmatic conditions consists of 0.05 Gm. the ophyllinethylene diamine, 0.05 Gm. caffeine, 0.0025 Gm. agaricinic acid, 0.015 Gm. synthetic racemic ephedrine, 0.01 Gm. extract belladonna and 0.01 Gm. dimethylamidopyrazolon in each.—*Pharm. Monatsh.*, 16 (1935), 123. (H. M. B.)

Reinecke's Blood Regenerator (Fabrik für pharm. Spezialitäten, Homöopathie und Biochemie G. A. Reinecke, Hannover) is a concentrated extract from the freshly collected leaves

and fruits of the mistletoe *Viscum album* L. manufactured by a special process to protect the natural constituents. It is indicated for use in cases of high blood pressure, vein calcification, aging, headache, vertigo and vasomotor disturbances of the climacteric.—*Pharm. Zentralh.*, 79 (1935), 461. (E. V. S.)

Roba Salts (Walter Bühner & Co., Bremen 1), contains sodium bicarbonate, magnesium carbonate, calcium phosphate, sodium sulphate, calamus rhizome, powdered absinthium and powdered anise. It is used for nervous gastric irritations.—*Pharm. Zentralh.*, 76 (1935), 354. (E. V. S.)

Rugosan Concentrate (Labor. pharm. diätet. Präparate G. Breitwieser, Krefeld) an expectorant for bronchitis, is a percolate of castanea, drosera and thyme, saponin (0.5%) and potassium iodide (3%).—*Pharm. Zentralh.*, 76 (1935), 431. (E. V. S.)

Rugosan Concentrate with Codeine (Labor. pharm. diätet. Präparate G. Breitwieser, Krefeld) is a percolate of castanea, drosera and thyme with 0.5% of codeine and ephedrine and 20% of bitter almond water added. It is indicated for coughs, and bronchial and pulmonary asthmas.—*Pharm. Zentralh.*, 76 (1935), 431. (E. V. S.)

Salzschlirfer Pills (Dr. W. Dernbach, Apotheker, Bad Salzschlirf), a constipation and blood purifying remedy, contain extract of aloe, extract of cascara and *Ipomœa turpethum*.—*Pharm. Zentralh.*, 76 (1935), 354. (E. V. S.)

Sanosin Tablets (Chem. Fabrik Perdyamin G. m. b. H., Berlin 027) contain quinine hydrochloride, caffeine, phenacetin and dimethylaminophenazone. It is used for grippe, arthritis, angina and dysmenorrhea pains.—*Pharm. Zentralh.*, 76 (1935), 354. (E. V. S.)

Sanotrapp Herb Extract (Dr. Schmidsche Apotheke, Inhaber Otto Trapp, Tübingen), a blood purifying and an arteriosclerotic preventive, is a percolate of sarsaparilla, tormentilla, angelica, millefolium, gentian, absinthium, cratægus and viscum.—*Pharm. Zentralh.*, 76 (1935), 431. (E. V. S.)

Sapo Liquidis Noury (Noury, Ltd., Deventer) is a liquid soap which is clear at ordinary temperature, foams well and does not irritate the skin. It is used among other things, as a shampoo.—*Pharm. Weekblad*, 72 (1935), 1045. (E. H. W.)

Scottin (Scott & Bowne G. m. b. H., Pharm. Fabrik, Frankfurt a. M.) is a natural standardized vitamin preparation manufactured from halibut liver oil. Scottin is marketed in pills containing in each 4250 vitamin A units and 250 vitamin D units, and in liquid form containing in each drop 1160 vitamin A units and 70 vitamin D units. They are used for conditions lacking these vitamins such as rickets, osteomalacia, distorted growth of the teeth, and to raise the vitamin A and D content during the lactation period of the mother.—*Pharm. Zentralh.*, 76 (1935), 555. (E. V. S.)

Sediletten Wafers (Cormedia, Chem.-pharm. Präparate, Mainz) contain in each wafer 0.03 Gm. of phenylallylmalonylurea, 0.35 Gm. of potassium sodium bromate, 0.05 Gm. of quinine hydrochloride, 0.03 Gm. of pyrazolone, and a homeopathic dose of phosphorus. It is used as a sedative.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Sedonan (H. R. Napp, London) consists of 5% solution of phenyldimethylpyrazolon in anhydrous glycerin and is used to reduce pain and diminish inflammation in acute otitis media, otalgia and other inflammatory conditions of the ear.—*Drug and Cosmetic Ind.*, 37 (1935), 127. (H. M. B.)

Sédospasmol (Fabrik pharm. Präparate Karl Engelhard, Frankfurt a. M.), an antispasmodic remedy, is marketed in cachets and tablets. The cachet contains eumydrinephedrine, phenylethylbarbituric acid, 0.5 Gm. of a bromide, and an easily absorbable calcium salt. They are of use in gall stone colic, bladder spasms, bronchial asthma and dysmenorrhea. In the tablets, the quantities of the spasmolytic and sedative active ingredients are increased.—*Pharm. Zentralh.*, 76 (1935), 431. (E. V. S.)

Sédotyol (Laboratories Debat) is a soothing and antiprurigenic ointment containing Scuroform 3.75 Gm., benzoic acid 1.25 Gm., Subcutine 1 Gm., zinc oxide 14 Gm., titanium oxide 6 Gm., sodium borate 0.1 Gm., extract of hamamelis 1 Gm., Lanovaseline enough to make 100 Gm.—*Bull. Ch. Synd. Pharm. Seine* (June 1935); through *J. pharm. Belg.*, 17 (1935), 672. (S. W. G.)

Steegenal Preparations (A. L. Steege, Leipzig) designated as A, H, M, T (drink cure) are chiefly 10–30% solutions of potash with small additions of liquid petrolatum, volatile oil, camphor

or plant extract. Steegonal-Bath is a 30% potash solution with about 1% soap.—C. A. ROJAHN and W. BRAUNE. *Apoth. Ztg.*, 50 (1935), 815–816. (H. M. B.)

Stomachysatum (Johannes Bürger, Ysatfabrik, G. m. b. H., Wernigerode) consists of the extracts of *Artemisia absinthium, Achillea millefolium, Gnaphalium arenarium, Rheum palmatum,* using the fresh green plants, and is used for dyspepsias, stomach catarrh, disturbed appetites and irregular stools.—*Pharm. Monatshefte,* 16 (1935), 123. (H. M. B.)

Sulfigen (Anhaltisches Serum-Institut G. m. b. H., Berlin-Dessau) is a protected colloidal sulphur preparation containing about 0.13% of sulphur and 0.57% of sulphur dioxide. The antiparasitic containing action justifies its use for scabies, ulcus, cruris, eczema, psoriasis and fistulas.—*Pharm. Zentralh.*, 76 (1935), 461. (E. V. S.)

Tablets 111 (Kloster Laboratories, Maulbronn) for hyperacidity, heart burn, gastric disturbances, etc., contain extract of condurango, bismuth subnitrate, milk sugar, sodium bicarbonate, heavy magnesia and oil of peppermint.—*Pharm. Monatsh.*, 16 (1935), 123. (H. M. B.)

Tæsch-Nasol catarrhal preparation (Chem.-pharm. Fabrik E. Tæschner, Potsdam) contains benzyl and menthyl esters, dicalcium citrate, and potassium *o*-oxyquinoline sulphate in a viscid solution. **Tæsch-Nasol** catarrhal salve is similar to the above except that boric acid in glycerin is substituted for the dicalcium citrate. It is marketed in tubes containing a nasal nozzle.—*Pharm. Zentralh.*, 76 (1935), 432. (E. V. S.)

Thyranon pro injectione (Organon, Ltd., Oss) is a thyroid preparation for subcutaneous and intramuscular injection. Each ampul contains 0.2 mg. of combined organic iron and corresponds to 1 tablet of thyranon (100 mg. thyroid powder).—*Pharm. Weekblad,* 72 (1935), 1043. (E. H. W.)

Tonicum Noury (Nourypharma, Ltd., Deventer). Each 100 cc. contains 20 Gm. liquid extract of kola; 10 Gm. glycerin; 1 Gm. tincture of nux vomica; 0.1 Gm. sodium methylarsenate; 0.2 Gm. sacch. manganosus and 3.7 Gm. sodium biphosphate. Dose: 1 teaspoonful three times a day.—*Pharm. Weekblad,* 72 (1935), 1044. (E. H. W.)

Tonicum Waldheim (A. Waldheim, Vienna) consists of sodium glycerophosphate, sodium methylarsinate, manganese chloride and strychnine nitrate.—*Pharm, Post,* 68 (1935), 387. (H. M. B.)

Tordiol (Siemens, reiniger-Veifa, Berlin), a roentgen contrast agent, is a 20% colloidal thorium dioxide preparation.—*Pharm. Monatsh.*, 16 (1935), 123. (H. M. B.)

Tussedat (Sagitta-Werk G. m. b. H., München) is a drop preparation containing *Castanea vesca,* drosera, primula, thyme, benzoic acid, some bromide salts and ephedrine (0.35%). A stronger preparation is also available in which the ephedrine is replaced by ethylmorphine (0.8%). It is indicated in pertussis and all coughing conditions of the respiratory tract.—*Pharm. Zentralh.*, 76 (1935), 555. (E. V. S.)

Trilysin (Promonta G. m. b. H., Hamburg) is a hair water consisting chiefly of an alcoholic solution of cholesterin to which chloroform or carbon tetrachloride has been added in addition to some plant tinctures.—*Pharm. Monatshefte,* 16 (1935), 139. (H. M. B.)

Urandil Salve (Dr. H. Truttwein, Dresden) is a radioactive iodine uranium salve with 10% iodine and uranium. As bases, petrolatum and lard are used.—*Pharm. Monatshefte,* 17 (1935), 139. (H. M. B.)

Valvonol (Anhaltischen Serum-Institutes, Dessau) is a disinfecting agent consisting of chlorcresol, chlorphenol, chlorxylenol and chlorthymol dissolved in a neutral soapy alcoholic and mild base. It is an unusually strong bactericide, non-poisonous, non-irritating and does not attack materials.—*Pharm. Monatsh.*, 16 (1935), 139. (H. M. B.)

Vinococte (Chem. Werk Dr. Klopfer, Dresden A 20) preparations are prepared from alcoholic complex colloidal plant extracts concentrated to contain sufficient dosages of the drugs employed. *Vinococt Anticystiticum,* a remedy for catarrhal pains of the urinary organs, especially the bladder, contains *Sorbus aucuparia, Herniaria glabra, Verbena officinalis, Fragaria vesca, Cochlearia officinalis, Betula verucosa, Arctostaphylos uva ursi, carex and Lamium album. Vinococt Antidiabeticum,* a diabetic remedy in all forms and stages, is prepared from *Vaccinium myrtillus, Potentilla tormentosa, Juniperus communis, Taraxacum officinale* and *Rubus fruticosus. Vinococt Antiscleroticum,* an arteriosclerotic, gout and rheumatic remedy, contains *Drosera rotundifolia* and *Rosa canina. Vinococt Cardiacum,* a heart tonic to increase the power of the heart beat, is prepared from Cratægus oxyacantha, *Menyanthes trifolium,* Nasturtium, humulus, *Allium ursinæ,*

Marrubium album and *Leonurus cardiaca*. *Vinococt Choleretícum* is prepared from *Capsella bursapastoris, Orthosiphon stamineus, Cinicus benedictus, Alpinia officinarum* and *Gentiana lutea*. It is used against all sicknesses of the gall bladder, the gall duct and the liver. *Vinococt Diureticum*, a dropsy remedy in all forms, stages and appearances, is prepared from *Ononis spinosa, Petroselinum sativum, Levisticum officinale, Bryonia alba*, rosmarinus and *Phaseolus vulgaris*. *Vinococt Lactagogum* is prepared from *Anethum graveolens, Galega officinalis, Polygala amara* and *Carex arenaria*. It is indicated for deficient milk excretion in the nursing mother. *Vinococt Nephricum* is prepared from *Lamium album, Polygon. avicul., Acorus calamus, Solidago virgaurea, Geranium Robert.*, uva ursi and *Borago off.* It is used for nephritus, renal contractions and bleeding. *Vinococt Pectorans*, a remedy for pains of the lungs, for bronchitis, pertussis, grippe, etc., is prepared from *Levisticum officinale, Tussilago farfara, Inula helenium, Thymus vulgaris, Plantago lanceolata* and verbascum. *Vinococt Phthisicum*, a remedy for all stages and forms of tuberculosis, is prepared from *Achillea millefolium, Pulmonaria officinalis, Galeopsis ochroleuca* and inula. *Vinococt Spasmolyticum* is prepared from *Matricaria chamomilla, Achillea millefolium, Mentha piperita* and *Gentiana lutea*. It is used for cramps of various origins, especially the gastric and digestive organs. *Vinococt Uterinum* is prepared from *Polygonum hydropiper, Cratægus oxyacantha, Alchemilla vulgara, Rhamnus frangula, Achillea millefolium* and *Matricaria chamomilla*. It is indicated for acute and chronic types of dysmenorrhea, climacteric maladies, etc.—*Pharm. Zentralh.*, 76 (1935), 380. (E. V. S.)

Vistonic Syrup (Laboratory Farmacol. Reggiand., Corregio, Italy) is a combination of copper-chlorophyll, iron and manganese glycerophosphate, quinine, caffeine and extract of nux vomica marketed in packages containing 115 Gm. and in packages of 20 tablets (each tablet = 0.0025 Gm. of the extract).—*Pharm. Post*, 68 (1935), 327. (H. M. B.)