

figure had fallen to 2,010, a decline of 42 per cent. Cancer, on the other hand, though a less frequent cause of death, shows an alarming increase. In the period 1851 to 1860 the deaths from this disease per million of the living population was 325, and in the decade 1891 to 1900 they had grown to 758. In the 40 years the death rate from this disease among males has trebled in England, and among females has doubled. A new English "life table" compiled for Dr. Tatham's report shows that the average lifetime of males, or the mean expectation of life at birth, is 44.13 years. In the case of females the expectation of life at birth is 47.18 years. This is a very considerable increase.

## Pharmacology

### New Remedies.

The following new remedies have been investigated at the Pharmaceutical Institute of the University of Berlin, under the direction of Prof. H. Toms, corresponding member of the Council on Pharmacy and Chemistry of the American Medical Association. The work was done directly by F. Zernik, and was originally published in the *Apotheker-Zeitung* of Berlin, from which the following abstracts are made:

NOVASPIRIN is a substitute for aspirin (acetylsalicylic acid), introduced because the latter has shown some of the unfavorable by-effects of salicylic acid, from which novaspirin is said to be free. The new compound is the disalicylic ester of anhydromethylene citric acid. Anhydromethylene citric acid has been introduced into medicine as a constituent of several synthetics such as citarin (sodium anhydromethylene citrate), and helmitol and new urotropin which are identical compounds of the acids with hexamethylenamin. Anhydromethylene citric acid is formed by acting on citric acid with chlormethyl alcohol,  $\text{CH}_3\text{ClOH}$ . The acid is then converted into the dichlorid by the action of phosphorus pentachlorid and the dichlorid in turn salicylated by the action of salicylic acid in benzene solution in the presence of dimethylanilin.

The examination by Zernik shows that the substance corresponds to its asserted composition. Novaspirin, anhydromethylene citric acid disalicylate, is a white powder, odorless and with a slightly sour taste, melting at 150-151 C. (302-303.8 F.). It is insoluble in cold water, but dissolves with decomposition in hot water. It is easily soluble in alcohol and acetone, less easily in ether, chloroform and benzol.

VINOPYRIN is introduced by the firm of Walter Fischer as a new antipyretic, etc., said to be free from injurious action on the heart and stomach. It is said to be a combination of tartaric acid with parphenetidin. Examination by Zernik showed it to be the bitartrate of parphenetidin, a substance already described in chemical literature and closely related to acetphenetidin (phenacetin). It is the complete analogue of acetphenetidin dihydrogen citrate, which has been considerably used in doses of from 0.5 to 1 gm. (8 to 15 grains) three times a day as an antineuralgic and antipyretic. Vinopyrin tablets are put up containing 0.75 gm. (12 grains) each and have been found by Zernik to have the same composition as the powder except the addition of a little talcum. The statements of Aufrecht that the tablets contained a mixture only of phenetidin and tartaric acid were not confirmed. One objection to the tablets is the slowness with which they disintegrate and enter into solution.

Vinopyrin is a white crystalline powder with a melting point of approximately 186 C. (366.8 F.). It dissolves in about 25 parts cold water, more difficultly in alcohol and is insoluble in ether. It dissolves readily in boiling water with some decomposition, which gives a red color to the liquid. It is recommended in doses of from 0.75 to 1.25 gm. (12 to 20 grains) three to four times a day.

CORYFIN corresponds in composition to the published formula, and is a menthol ester of ethylglycolic acid. It is a colorless and odorless liquid, very slightly soluble in water, easily soluble in alcohol, ether and chloroform, neutral in reac-

tion and leaves no residue on heating. It is recommended as a means for gradually developing the anesthetic and analgesic properties of menthol.

CYSTOPURIN is claimed to be a combination of two molecules of sodium acetate with hexamethylenamin, having the formula  $\text{C}_6\text{H}_{12}\text{N}_4 \cdot 2\text{CH}_3\text{COONa} + 6\text{H}_2\text{O}$ . It is recommended as a urinary antiseptic. The analysis shows that it does not possess the above composition, but contains a larger quantity of hexamethylenamin than corresponds to the formula and less sodium acetate and water. Attempts to produce a combination of hexamethylenamin and sodium acetate failed.

MONOTAL is the guaiacol ester of ethylglycolic acid. It is a colorless oily liquid having a characteristic aromatic odor. Monotal is very slightly soluble in water, easily so in alcohol, ether, chloroform and fatty oils. Its watery solution has a neutral reaction.

FORMIDIN is a preparation put out by Parke, Davis & Co., who claim that it is an iodid of methylene-disalicylic acid and that it has the formula  $\text{C}_{13}\text{H}_{10}\text{O}_4\text{I}_2$ . It is said to be produced by condensation of formaldehyd, salicylic acid and iodine, and is recommended for internal use and also as a dusting powder for wounds. It is claimed that the original constituents are slowly reformed when the product is in contact with alkaline secretions. Zernik states that it is a chocolate-colored, fine amorphous powder which is insoluble in ordinary solvents except alcohol, in which it dissolves to a clear, reddish-brown liquid which remains clear on diluting with water, but precipitates a yellowish flocculent precipitate when an acid is added. Quantitative analysis showed that the substance does not conform to the published formula, but contains about 20 per cent. less iodine; tests failed to show the separation of formaldehyd in presence of either acids or alkalies.

## Correspondence

### The Scientific Temperance Federation—A New Movement.

HARTFORD, CONN., July 1, 1907.

To the Editor:—All physicians and writers have experienced great difficulty in securing exact data on subjects pertaining to alcohol and narcotics and the allied topics of insanity, crime and hygienic subjects associated with these. Many valuable papers, pamphlets, books and studies have had a very limited usefulness because they were scattered and not gathered and put on file in some central place. Not any of the large libraries do more than file away the various independent publications on these subjects and make no effort to secure a general literature covering all phases of the subject. The physician and the teacher, as well as the writer, have long ago recognized the need of some central agency for the collection and dissemination of the rapidly accumulating facts in this field. The late Mrs. M. H. Hunt of Boston had gathered more than 2,000 books and pamphlets on these subjects, and with this as a nucleus a society called the Scientific Temperance Federation has been formally organized and incorporated under the laws of Massachusetts, with power to hold real estate and receive legacies and endowments to carry on the work of a scientific bureau. Its aim is to bring together the facts developed by scientific research and experience, making them accessible to all persons interested in the great questions of sobriety, alcohol and drink neurosis and hygienic living; and to disseminate such facts in every possible way. Also to enable the specialist and writer to put his conclusions on file, where they can be sought for and examined by every student and worker who is desirous of obtaining exact information along these lines. The federation is not a society for the promotion of any reform movement, but aims simply to collect and keep on file every fact and statement and study made in this country and Europe concerning alcohol, narcotics and allied subjects. It will be a clearing-house as well as a storehouse for physicians, teachers and philanthropists, where societies can deposit and place on file their conclusions; and in turn receive abstracts or copies

of everything written on this subject. A small membership fee will be charged to persons who would like to assist in the development of this work, for which they will receive abstracts or data of what has been written and copies of any future publications. To others, not members, a research fee will be charged for abstracts and copies of papers. The income from this source and from endowments will eventually build up a very rich library and bureau of literature of immense value for the future. Every one interested in helping on this movement should address the secretary, Miss C. F. Stoddard, 23 Trull Street, Boston. Every author of books or papers that bear on the subject of alcohol or narcotics, either directly or indirectly, should send copies to the above address. These papers will be filed, catalogued and put away where they can be used on any future occasion. A large number of distinguished men have become members and the organization is non-partisan in the broadest sense of the word. T. D. CROTHERS, M.D.

#### Quinin-and-Urea Hydrochlorid in Malaria.

PHILADELPHIA, June 28, 1907.

*To the Editor:*—In the demonstrations which, following the recent meeting of the American Medical Association, I gave to visiting members, in the medical ward at Jefferson Hospital, I had the opportunity to illustrate the treatment of malarial fever by hypodermic injections of quinin-and-urea hydrochlorid. The patient was a young man with double tertian infection. The injection was made shortly after a paroxysm. According to prediction a paroxysm appeared on the succeeding day, but there were no further paroxysms for six and three-fourths and thirteen and one-half days respectively, although organisms were found in the peripheral blood (also according to prediction) on the fifth and twelfth days respectively, having been absent in the meanwhile. I have made this demonstration repeatedly in my public clinics at the Philadelphia Hospital, and published it occasionally,<sup>1</sup> during the last fifteen or sixteen years. My object in now publishing it again is to ask observers who have skill and opportunity to test, by blood taken from the spleen or other deep source, whether, during the resting period of something less than fourteen days, conjugation of microgametes and macrogametes takes place in the human (avian or animal) body. A single injection of 0.7 to 1 gm. (10 to 15 gr.) in a syringe—1.5 to 2 c.c. (20 to 30 m.)—of sterilized distilled water, thrown deeply under the skin, and preferably about two hours before an anticipated paroxysm, will secure this non-paroxysmal period of between thirteen and fourteen days in single tertian and between six and seven days in double tertian infection, in almost every case. I have tested it 100 times. According to the time (in relation to the paroxysm) at which the injection is given, and also according to other factors as yet undetermined, the period at which organisms can again be discovered peripherally,<sup>2</sup> varies somewhat, as does likewise the form in which the paroxysm recurs. Sometimes there is full chill, fever and sweat; sometimes only rise of temperature without other disturbance; and between these extremes many varieties. Of course, the injection must be made carefully and aseptically. But if this be done and the point of puncture painted with tincture of iodine, or sealed with iodoform-collodion or sterile collodionized cotton, there will be no local injury.

The coincidence between the 6 to 7 days and 12 to 14 days' periods of freedom respectively following the injection of this most powerful of the quinin salts with the periods of the pre-cystic and post-cystic stages and entire sporogonic (mosquito) cycle of the malarial organism—especially when we recall the old clinical observations of recurrent paroxysms on the seventh and fourteenth days—is suggestive of some fundamental relation between the various phenomena. Just what it is remains to be proved, but it must be connected in some way with a cycle of development different from the ordinary schizogony, that occurs somewhere in the body of the infected person. The "quantitative" explanation does not seem to be

sufficient. It would also be of interest to observe the effect, if any, of a very weak solution of the drug on the development of the organism in the mosquito. SOLOMON SOLIS-COHEN.

#### Beware of an Alleged Repair Man.

SCRANTON, PA., July 1, 1907.

*To the Editor:*—Physicians using electric appliances should beware of a man giving his name as "Dr." C. P. Hoffman, claiming connection with Van Houten & Ten Broeck of New York, and proposing to repair appliances. He contracted to clean and rebuild my static machine (June 15, 1907), and to take two days (himself and assistant). They worked spasmodically three hours and packed their tools (while I was absent about 15 minutes) and skipped, leaving my machine one-third torn down and useless, having broken several plates and caused me an unlimited amount of trouble. He is a fraud, certainly no mechanic, and I take this occasion to warn the profession against being swindled. Moreover, I would be pleased to hear of any one he has treated similarly to myself. D. W. EVANS, M.D.

#### The Alexander Cancer "Cure."

PHILADELPHIA, July 8, 1907.

*To the Editor:*—Referring to the editorial in THE JOURNAL, July 6, 1907, on the publication in *Leslie's Weekly* of the report of an alleged clinic asserted to demonstrate the usefulness of Alexander's so-called cancer "cure," I would call your attention to a reprint of the article, issued as an advertising circular, so soon after the publication you have criticised as to leave little room to doubt the commercial origin and connection of both.

The old code of ethics of the American Medical Association well said, concerning nostrums, that their proprietors must confess either to gross inhumanity or to fraudulent avarice. Surely this applies in a peculiar degree to alleged cures for cancer. If a real discovery has been made in the treatment of this sad affection, it should be published to the world, as Beard has published his experience with trypsin and amylopsin, as Jacobi has published his use of methylene blue, and as all other physicians worthy of the name, publish their discoveries, their experience and their suggestions. Concealment could only be for the sake of gain, and to characterize it as inhuman avarice would be mild. But when such concealment exists there is no reason to believe that a genuine discovery has been made; rather is it to be concluded that to inhuman avarice fraud, equally inhuman, has been added. *Leslie's Weekly*, therefore, even if deceived, has lent itself to inhuman avarice; and if not deceived, it has lent itself to inhuman avarice and fraud. SOLOMON SOLIS-COHEN.

### Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

#### GRAMS AND MILLIGRAMS.

CHICAGO, JUNE 28, 1907.

*To the Editor:*—In the "Laboratory Manual" by Dr. B. Fantus, p. 21, I find this clear and cogent rule: "In reading quantities including several denominations, only one unit is used, thus 0.065 gm. is read 65 milligram (65 mg.) not 6½ centigram, nor 65 thousandth of a gram." Now, applying the above rule or any other rational rule, how would you read W. A. Jolley's table 2 on p. 1718, vol. xlviii, or this: "Dose of atropin is 0.0004 gm. or 0.4 mg."? Now what I can not understand is what are the exact words, that is, written, read, or spoken words, to express entirely the "unit" 0.0004 gm? If I may not say what I am cautioned not to say in Fantus rule, then I am completely "stuck." We easily say or read 1.0 c.c., or 15.0 c.c., but what is correct reading for 0.3 c.c., is it 3 tenths of a c.c.? A. H. DE MENDOZA, M.D.

ANSWER.—Among chemists, who use these terms more than any one else, it is customary to use as denominations of weight the gram and milligram, omitting the intermediate terms and occasionally using the term kilogram. Following this custom quantities smaller than a milligram would be spoken of as decimal fractions of a milligram, but would be written as fractions of a gram. A similar

1. The Polyclinic, Philadelphia, March, 1893, p. 66.

2. Sometimes it has seemed that they could be found more readily at night, but the elements of the problem are not sufficiently clear to warrant an unqualified statement.