

## Pharmacology

### ECHINACEA CONSIDERED VALUELESS

#### Report of the Council on Pharmacy and Chemistry

The Council has voted to reject several non-proprietary articles and has recommended that the reasons for their rejection be given in THE JOURNAL; among these is echinacea. The following paper has been submitted by a subcommittee with the recommendation that it be published. This recommendation was adopted.

W. A. PUCKNER, Secretary.

#### ECHINACEA

When this drug was first introduced, it was a typical nostrum, with exaggerations regarding its therapeutic value that were somewhat more gross than usual. It was later adopted by the eclectic school without being freed from the stigmata of its origin. It was also pressed into use as the main ingredient of such proprietary preparations as echafolta, ethol, eusoma, etc. Efforts have been made to get the regular profession to use it in these various forms.

According to J. U. Lloyd (*Pharm. Review*, vol. xxii, p. 9-14), the introduction of echinacea into eclectic medicine is due to the efforts of Dr. H. F. C. Meyer to increase the sale of Meyer's Blood Purifier, a secret remedy containing it. The following is a literal copy of the label on this nostrum:

#### MEYER'S BLOOD PURIFIER

##### DIRECTIONS

Take one ounce three times every day in the following cases: *Rheumatism, Sick Headache, Erysipelas, Dyspepsia, Old Sores and Biles, Open Wounds, Dizziness, Scrofula and Sore Eyes.*

In case of *Poisoning by Herbs, & C.*, take the double dosis, and *Bites of Rattlesnakes* take three ounces three times a day, until the swelling is gone. This is an absolute cure within 24 hours.

After Lloyd had identified the plant, Meyer put the preparation out under another form with the following label:

#### ECHINACEA ANGUSTEFOLIA

This is a powerful drug as an Alterative and Antiseptic in all tumorous and Syphilitic indications; old chronic wounds, such as fever sores, old ulcers, Carbuncles, Piles, eczema, wet or dry, can be cured quick and active; also Erysipelas. It will not fail in Gangrene. In fever it is a specific; typhoid can be adverted in two to three days; also in Malaria, Malignant, Remittent and Mountain fever it is a specific. It relieves pain, swelling and inflammation, by local use, internal and external. It has not and will not fail to cure Diphtheria quick. It cures bites from the bee to the rattlesnake, it is a specific. Has been tested in more than fifty cases of mad dog bites in human and in every case it prevented hydrophobia. It has cured hydrophobia. It is perfectly harmless, internal and external.

Dose.—One half to one fluid-drachm 3 or 4 times a day. Manufactured by H. C. F. Meyer, M.D.  
PRICE, \$ PAWNEE CITY, NEB., U. S. A.  
Patent

These absurd claims of an evidently ignorant man have passed into the more recent proprietary advertising matters and into much of the eclectic writings. Indeed, the seemingly impossible has been attained by even surpassing Meyer's all-but-all-embracing claims. Not content with endorsing echinacea as a positive and speedy "specific" for rattlesnake bite, syphilis, typhoid fever, malaria, diphtheria and hydrophobia, later enthusiasts have credited it with equally certain curative effects in tuberculosis, tetanus and exophthalmic goiter, and with the power of retarding the development of cancer.

It is worth noticing—although it is not surprising—that these far-reaching claims have been made on no better basis than that of clinical trials by unknown men who have not otherwise achieved any general reputation as acute, discriminating and reliable observers. No attempt seems to have been made to verify these claims by accurate scientific methods, clinical or otherwise, although this could very easily have been done.

Not one of the eulogistic reporters and exploiters seems to have considered it worth while to determine by the simplest control experiments whether the drug possesses any bactericidal or antiseptic powers whatever. It is therefore not very strange that discriminating physicians have failed to show much enthusiasm. One of the warmest endorsers of echinacea, C. S. Chamberlain (who later became the president of the

Eusoma Pharmaceutical Company), complains that he has been unable to interest regular physicians in the remedy. He reviews the statements of previous authors and reports eight cases of infection, only two being acute or extensive, in which he used it with asserted success.

In view of the lack of any scientific scrutiny of the claims made for it, echinacea is deemed unworthy of further consideration until more reliable evidence is presented in its favor.

#### REFERENCES

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### FALSE UNICORN (HELONIAS)

#### Report of the Council on Pharmacy and Chemistry

The Council voted to refuse to recognize false unicorn as a non-proprietary article and the following statements, submitted by a subcommittee, were ordered published.

W. A. PUCKNER, Secretary.

#### FALSE UNICORN—HELONIAS

*Helonias dioica*, or more properly *Chamaelirium luteum*, is a plant, preparations of which enter into various proprietary mixtures for diseases of the female pelvic organs. In the advertisements of these preparations it is usually credited with hemostatic powers and is asserted to be a uterine tonic.

There is practically no reference to this drug in reliable medical literature, and as there is no evidence worthy of credence to support the claims made for it, the drug was not considered deserving of a place in the Pharmacopeia. Hence, it may be regarded as a drug not worthy of attention of physicians.

## Correspondence

### Microscopic Moving Pictures

To the Editor: In the daily papers there have recently appeared items to the effect that Jean Commandon, a French scientist, has demonstrated in Paris in the presence of the members of the Academy of Science, his most wonderful invention, the microcinematograph, a machine which enables him to take moving pictures of microscopic objects and project them in motion on the screen. The *New York World* of October 31 says:

"No longer is it possible for a bacillus, however microscopic, to live and move secretly. At last the intimate existence of an active microbe has been betrayed by the cinematograph. . . . With this new instrument living organisms one thousandth of a millimeter in diameter are photographed and magnified, and can be studied. . . . Professor Daster, an eminent bacteriologist, says it is impossible to estimate the importance of this advance in science, which opens a new world to the human eye, and reveals facts about minutest organism hitherto unsuspected."

I desire to call attention to the fact that this invention is nothing new; that the idea of such a machine was conceived by me some fourteen or fifteen years ago, and that I demonstrated it, after the construction has been completed, as far back as 1897, in my private office in the presence of Dr. Wm. H. Katzenbach, Dr. E. Bradley, Dr. Goodwille, Mr. David St. Clair, and others of prominence.

After this demonstration took place, the "micromotoscope," as I named the machine, was described in the *Scientific American*, July 31, 1897, from which the following is quoted:

"The principles of the kinetoscope or mutoscope have been applied to the microscope with some interesting results by Dr. Robert L. Watkins of this city. The instrument, though simple, was made a success only after many experiments and failures in adjusting the objective of the microscope in a line with the right sort of light and a rapidly moving film. . . . This machinery is turned by a crank and its ordinary capacity is about 1,600 pictures per minute. . . . The advantages of the microscopic photography to microscopy are evident, especially as regards the action of bacteria and blood cells. . . . Numerous photographs of bacteria were taken, but the motion happened to be an up-and-down one and showed no change of position in the field."

The same year (1897) the micromotoscope was again described and illustrated in *Photograms*, a London periodical, which said: "During the year two distinct steps have been made in cinematography"; then, after giving a description of Dr. Macintyre's invention in radiography, the editor proceeded:

"Dr. Watkins, on the other hand, combined kinetography and photomicrography, so as to be able to record and reproduce the movements of objects so small as corpuscles, rotifers, microbes. This power of studying the motion of the corpuscles is expected to prove of infinite value in the diagnosis of certain diseases. From this it will be seen that kinetography, which commenced as a scientific industry, has made distinct steps in scientific progress, in addition to captivating the public taste . . ."

Not only was credit given me in the periodicals quoted above, but the "Standard Dictionary," 1905 edition, in defining the micromotoscope, refers to me as its inventor.

At about 1898, I again demonstrated this machine to a private audience at my house in the presence of Mr. Hopkins, editor of the *Scientific American*, Dr. G. L. Curtis, Dr. Fitch, Dr. J. H. Gunning, Mr. Robert Niles, and a few others of this city.

With the assistance of Mr. Thomas F. Livingston and Mr. E. W. Clausing, the micromotoscope was also shown at the Grand Central Palace of this city in the fall of 1897 at the Trained Nurses' and Pure Food Exhibition. Numerous microscopic objects, taken with the micromotoscope, were projected on the screen at this exhibition. Among others were the circulation of the blood in the web of the frog's foot, rotifers in stagnant Croton water, an ameboid leucocyte, moving blood-cells under the microscope, moving germs in fermenting urine, micrococci and bacteria, etc. Some of these positives were printed in the Edison Laboratory, East Orange, N. J.

At the time of this exhibition Dr. F. M. Jeffries of the New York Polyclinic furnished me with some specimens of typhoid germs, of which I made micromotoscope negatives. The above pictures were shown to over 10,000 people; one night these photographs were thrown right across the length of the immense main hall, producing a magnification of about 1,500,000 diameters, according to our rough figures. Some of the microscopic objects looked like "whales and sea-serpents," as some in the audience observed. Charles L. Bristol, Professor of Biology in the New York University, remarked at the time that he had not supposed that this could be done.

Mr. F. M. Ramsden of Santiago, Cuba, who was very much interested in this scientific achievement, is in the possession of the only photograph I took of my first micromotoscope outfit in position ready to work. The first pictures that were taken by it were specially mounted for and presented to Dr. Abraham Jacobi, who now has them, and who readily remembered it, when I mentioned the fact to him a few days ago.

Since this first outfit, I have gradually improved my camera, making it more simple, until I have at last produced the unique machine which I am now using. In experimenting on this micromotoscope, I have used up enough machinery and material to fill up a good-sized junk-shop.

The latest demonstration of the last pictures taken with this machine took place in Chicago on June 17 of this year, where I showed it to an audience of 500 doctors of the National Eclectic Association. Had I not been delayed with the construction of my new projecting machine, a demonstration of the micromotoscope would have taken place at the American Medical Association meeting in Atlantic City, last June.

I can cite many more instances to prove the validity of my claim of being the first to conceive this idea and demonstrate with a machine and photographs. The credit, then, for this invention rightly belongs to an American and not to a Frenchman.

ROBERT L. WATKINS, M.D., New York.

#### Free Use of the Mails for Literature on Public Health

*To the Editor:*—About two years ago an effort was made by the state health officer of Florida to obtain for the various State and Territorial boards of health of the United States the privilege of free service through the mails for the distribution within State and Territory lines of sanitary and health

bulletins and matters connected therewith. The measure was formulated into House Bill No. 11,317 and introduced by Hon. S. M. Sparkman, representative from the First Congressional District of Florida. When this measure was first proposed, the state health officer of Florida wrote to every State and Territorial board of health asking their cooperation through their representatives in Congress. Encouraging replies were received from all. It was hoped that the measure would become a law, especially since Mr. Sparkman received decided encouragement in his interview on the subject with the Postmaster-General. Later on, however, Mr. Sparkman was informed that President Roosevelt opposed the granting of this privilege; hence, of course, it was useless to proceed further with the measure.

The bill, as introduced, read as follows:

#### A BILL

H. R. 11317.

To extend the franking privilege to literature published by boards of health of states, territories, and municipalities in the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That it shall be lawful to transmit through the mails, free of postage, any printed letters circulars, documents, pamphlets, and literature relating exclusively to the public health, which shall be issued by or under the authority of any board of health of any state, territory or city in the United States.

Sec. 2. That every such letter or package to entitle it to pass free shall bear over the words "Public Health Business" an indorsement showing the name of the state, territorial or municipal board of health, as the case may be, whence transmitted. And if any person shall make use of any such official envelope to avoid the payment of postage on his private letter, package or other matter in the mail, the person so offending shall be deemed guilty of a misdemeanor and subject to a fine of three hundred dollars, to be prosecuted in any court of competent jurisdiction.

Now, there seems to be no good reason why the United States mails should not be made a medium for disseminating useful and instructive sanitary information to the people. Measures taken to inform the general public on questions relating to their health and life seem as important as political documents—to the mind of every intelligent citizen even more so; certainly capable of favorable comparison with the instance reported in the public press of "the franking of a set of furniture through the mails by a representative in Congress from his home at Washington when near the completion of his term of office."

This matter is now submitted to the medical profession and the health officials of the United States with the hope that they may approve the measure, give it strong endorsement to congressional delegations from each state of the union, and urge it with all fervency as an appeal to benefit humanity and to increase the life tenure of the citizen.

JOSEPH Y. PORTER, Key West, Fla.,

State Health Officer of Florida.

#### Ability, the Real Test

*To the Editor:* There is a tendency on the part of the embryonic medical practitioner to become imbued with the foolish idea, after he has formally done with the state medical examining board, and procured a license to practice the healing art, that the public cares only to know that he has spent so many years in the high school, so many years in the academy, so many years in the college of liberal arts, so many years in the medical department of some university, and so much time as an intern.

The length of time spent in a college, or a dozen colleges, is no guarantee of knowledge acquired, nor is it a gage by which the public may reckon the fitness of a man to practice the principles of the craft. In fact, years have nothing to do with gaging the mental capacities of men. Men's mental abilities vary. Man's individual ability is as varied as his undertakings, and he achieves the really great things only after he has tried himself out. Therefore, there should be but one test—the test of ability, not the test of time as spaced off by college men. Nor is this statement intended to cast any reflections whatever on those who are engaged in the teaching of medicine.

Avoid the exaggeration, and remember this: the public cares little how long we have studied a particular subject, but rather how much we know of it!

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