Correspondence

Danger of Trichinosis from Pork

To the Editor:—From time to time reports of outbreaks of trichinosis reach the Department of Agriculture, affording indisputable evidence that the extremely unhygienic custom of eating raw or imperfectly cooked pork is followed to some extent in the United States. On account of the danger involved in this custom, and on account of the common belief by persons aware of the existence of such a disease that pork inspected and passed under the federal meat-inspection law has been inspected for trichinae, the Department of Agriculture has issued the following notice:

COOK PORK WELL

Cases of illness sometimes occur from eating uncooked or insufficiently cooked pork which is infested with a microscopic parasite commonly known as trichina or flesh-worm, the scientific name being *Trichinella spiralis*. An average of 1 or 2 per cent. of the hogs slaughtered in the United States are infested with this parasite. When transmitted to human beings, trichinae may cause serious illness, sometimes resulting in death. Out of about 15,000 cases of trichinosis recorded in medical literature, most of which occurred in Europe, 830 resulted fatally.

No method of inspection has yet been devised by which the presence or absence of trichinae in pork can be determined with certainty, and the government meat inspection does not include inspection for this parasite. All persons are accordingly warned by the United States Department of Agriculture not to eat pork, or sausage containing pork, whether or not it has been inspected by federal, state or municipal authorities, until after it has been properly cooked.

A temperature of about 160° F. kills the parasite; therefore pork when properly cooked may be eaten without any danger of infection. Fresh pork should be cooked until it becomes white and is no longer red in color in all portions of the piece, at the center as well as near the surface. Dry salt pork, pickled pork, and smoked pork previously salted or pickled, providing the curing is thorough, are practically safe so far as trichinosis is concerned, but, as the thoroughness of the curing is not always certain, such meat should also be cooked before it is eaten.

A pamphlet giving information on the subject may be obtained on application to the Secretary of Agriculture, Washington, D. C.

I desire to ask the cooperation of the medical profession in giving publicity to the fact that pork in its raw state is a dangerous article of diet, and would also request that any cases of trichinosis which may come under the care of readers of this article be reported to this bureau. The information especially desired is the number of cases and of fatalities, date and place of occurrence of the outbreak, nationality of the patients, and source of the pork which caused the outbreak.

A. D. MELVIN, Washington, D. C.

Chief of the Bureau of Animal Industry, United States Department of Agriculture.

Anesthetic vs. Carbon Dioxid

To the Editor:—I have read with interest your editorial on "The New Theory of Shock," in *THE JOURNAL*, Feb. 11, 1911, page 424.

In 1896, I was the guest of the Neurological Society of London, when Mr. Waller demonstrated the effects of anesthetics on peripheral nerves. He showed that ether was the safest anesthetic and that it was better combined with carbon dioxid, as then the nerve showed more rapid response to electrical stimulation. When chloroform alone was used he showed that the peripheral nerves would not respond to electrical stimulation but that when the chloroform was mixed with carbon dioxid they readily responded to electricity and returned to normal. Ever since then, when I administer chloroform I give a little of the drug but keep my hand over the mask, thus making the patient inhale his own breath, in this way giving a certain amount of carbon dioxid.

I have always had good results with this method of anesthesia. Once I was present at an operation when the patient stopped breathing; she was reusituated and the operation carried to a successful conclusion by administration of chloroform plus rebreathed air—carbon dioxid. In December, 1901, a colleague had a chloroform fatality in a patient with nephritis, and as I had recently had personal experience with nitrous oxid-ether anesthesia, I advocated its adoption in

this case; thereby I had the honor to introduce this form of anesthesia into Cincinnati with the original Bennett apparatus. This has been used continuously since at the Ophthalmic Hospital with satisfaction and success. Here, again, we have the carbon dioxid factor for the nitrous oxid only starts the anesthesia and then comes the ether, and by the closed rubber bag we again have the patient breathe carbon dioxid.

Your editorial explains Mr. Waller's demonstration of 1896 which showed that anesthetic plus carbon dioxid is safer than anesthetic alone, and that ether plus carbon dioxid is safer than chloroform in any combination.

W. EDWARDS SCHENCK, M.D., Cincinnati.

One Physician's Method of Increasing His Income

To the Editor:—I wish to contribute a statement to the subject of the remuneration of physicians:

I have been in the general practice of medicine since 1890 in Detroit on the same lot on which I was born. For twenty years I trusted all applicants for medical aid with results approximately as follows:

- 2 per cent. would pay me promptly.
- 13 per cent. could pay me only "when I went after them."
- 25 per cent. got out of paying me in every possible way.
- 60 per cent. did not pay me at all.

Jan. 1, 1910, I turned over a new leaf, and referred to other physicians all would-be patients who did not pay cash and had not approved credit. In 1910, the income from my practice was 98 per cent. greater than my average yearly income for the preceding twenty years and my expenses for 1910 were less than the average yearly expenses for the same period. Except for the fact that I gave my individual attention to my invalid mother for the three years prior to 1908, which cut into my practice considerably, I am unable to assign any other cause than this change of policy for the increase in income.

Since Jan. 1, 1910, I have had more time for reading, refreshment and sleep; and my present plan is preferable to that of those physicians whose ambition is to have the "largest practice" in a community at the cost of poor health or an early death.

JOHN L. IRWIN, M.D., Detroit.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

FRENKEL'S REEDUCATIVE MOVEMENTS

To the Editor:—Kindly give me some information about Frenkel's exercises. On page 453 of *THE JOURNAL*, of February 11, are references to them, and I would like to know the method of using these exercises.

To the Editor:—In the abstract of an article on locomotor ataxia by Dr. Billings, I notice his recommendation of Frenkel's reeducative movements. What are these procedures?

DR. C. F. BOUCEK, Allegheny, Pa.

ANSWER.—References to the principal articles dealing with the reeducation of the muscles in tabes dorsalis by the method of Frenkel are given in *THE JOURNAL*, July 18, 1908, p. 239. An abstract of one of Frenkel's articles is given in *THE JOURNAL*, July 22, 1905, p. 294. Some account of the treatment is given in various books on the practice of medicine, and in a recent article by J. K. Mitchell, "Treatment of Locomotor Ataxia by Exercises of Precision," in *The Old Dominion Journal of Medicine and Surgery*, June, 1909; this article was abstracted in *THE JOURNAL*, July 10, 1909, p. 149.

The principle of the method is that while the lesions of tabes cannot be affected by treatment, the lost coordination can be more or less completely restored. This treatment consists in a psychic training of the powers of coordination, not in the attempt to increase muscular power, which often is not impaired. For this reason, the fatigue which may interfere with coordination is a nervous phenomenon, and should not be increased by having the patient attempt severe exercise. Patients with tabes do not feel fatigue readily, but indicate it by loss of precision in their movements, increase in pulse-rate, etc. The patient must be watched lest he go too far, but also should be encouraged to undertake movements of which at first he may not deem himself capable. One of Frenkel's exercises is to have the patient lie in bed and try to place his heel in a set of cup-like depressions in a board placed across