

the 70 per cent. of lives needlessly sacrificed, that might be saved as breadwinners in industrial pursuits.

In an address delivered before the International Congress of Military Surgeons in 1904, after my return from the Russo-Japanese War, I said: "Perhaps the day is not distant when another summons will come to join the Army of the Republic, when the first call may be, not as in the Civil War for 75,000 men, nor as in the Spanish War for 250,000, but when, more likely it will be for a round half million, to be followed possibly by another of equal number. And the question will be asked by the young patriot of that day, not *who* the enemy is he is to meet—No, the American boy is *not* built that way—but he will demand to know what measures have been taken to insure him against the silent enemy who kills the 80 per cent. And when he learns the same prehistoric regulations as to sanitation and protection against this foe are in force as they were in 1904, will he respond to his country's call? Yes, he will, for that is the way the American boy is built. And he will follow, as did his forebears, in their footsteps, and he will fall by the way-side as they did before. And history will record another crime."

We see by the light of thousands of years,
And the knowledge of millions of men,
The lessons they learned through blood and in tears
Are ours for the reading, and then
We sneer at their errors and follies and dreams,
Their frail idols of mind and of stone,
And call ourselves wiser, forgetting, it seems,
That the future may laugh at our own.

Let Congress give the medical officer rank and authority in all matters appertaining to sanitation and preventable disease and supervision over the ration, when such authority will not interfere with the strategy of the commanding officer of the line, and then, if serious epidemics or other preventable diseases occur, have him courtmartialled and cashiered from the Army, as though he were a traitor and a spy.

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"BREVITY IS THE SOUL OF WIT"

To the Editor:—I have now been a reader of your valuable paper for more than a year, and do not see how I can possibly do without my weekly copy. The thing that kills the British medical journals is the length of their articles. It almost seems that every writer makes it his business to make his articles as long as he possibly can instead of the reverse. I trust, therefore, that you will not allow that vice to creep into THE JOURNAL. A busy man has no time to be bored with such long articles. I thought the article on "The Treatment of Hookworm Infection," published in THE JOURNAL, February 23, was rather long, and contained tables that might have been eliminated with a summary.

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TOXICITY OF ARSPHENAMIN (SALVARSAN): REPORT OF CASES

To the Editor:—Having read a report by Dr. James C. Sargent of Milwaukee on five cases of unusual toxicity resulting from administration of the new American made salvarsan, I am constrained to report three cases, believing that this information should be given to the medical profession.

A man, aged 38, suffering from the secondary stage of syphilis, who had had three weekly 0.6 gm. doses of diarsenol with no toxic reactions following, reported for his fourth treatment. The first obtainable American made salvarsan had just reached us, and a dose of this was given after being mixed in the following manner: First the ampule was dissolved in 90 c.c. of hot sterile freshly distilled water, and sufficient cool freshly distilled water was added to bring the amount up to a 200 c.c. bulk. Freshly prepared 15 per cent.

sodium hydroxid was added drop by drop, the solution being stirred constantly, until the precipitate was redissolved. The solution was given by the single tube gravity apparatus method into a vein at the bend of the elbow, this method having been used by us more than 400 times without a single bad result. Before one half of this solution had been given, the patient began to complain of severe pains in various parts of his body. He became prostrated, his pulse rapid and weak, and cold perspiration stood out over him. The patient became nauseated but did not vomit. The solution was discontinued, and blankets and hot water bottles were applied. After about three hours the patient felt almost normal but during this period he complained of more or less pain and showed signs of shock.

The second case was that of a man, aged 36, with an old long standing case of syphilis who was undergoing a series of arspenamin treatments. He had had three weekly doses of diarsenol without any reaction. He was given a 0.6 gm. dose of American made salvarsan made up as in the preceding case. Just prior to the discontinuance of the injection of the full dose this patient began to complain of pains in various parts of his body, his face and eyes became intensely injected, and his face was slightly swollen. He was decidedly nauseated, but did not vomit. After about an hour he felt able to go home.

The third case was that of a boy, aged 17, who was being treated in the secondary stage of syphilis and had had two weekly 0.5 gm. doses of diarsenol with no reaction following. He was given a 0.5 gm. dose of the American made salvarsan one week following his second dose of diarsenol. Throughout the injection of the solution the patient felt well. About one minute after the discontinuance of the injection and while the patient was yet on the treatment table, his face flushed suddenly, and the eyelids, lips and tongue swelled to huge proportions. The tongue was so thick that he could scarcely protrude it. The eyes were injected, and he vomited freely. He complained of intense pain in various parts of the body, especially through the abdomen. The pulse was very rapid and weak. Immediately a 15 minim dose of epinephrin solution was given hypodermically. This dose was repeated in fifteen minutes. He was put to bed in the hospital and external heat applied. The swelling of the tongue, eyelids and face gradually subsided, and after about four hours had practically disappeared. The patient was able to leave the hospital in about six hours.

These three doses of American made salvarsan were the first doses that had been used in this hospital and, because of these reactions following their administration, we decided not to give the fourth dose, so returned the remainder of the shipment to the Farbwerke-Hoechst Company. They have acknowledged receipt of the returned shipment and have written us that they expect to make further investigations of the lot in an effort to determine where the difficulty is. They report that both biologic and chemical controls were perfectly satisfactory before releasing the salvarsan.

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[COMMENT.—The publication of the report by Dr. Sargent stimulated a number of physicians to write to THE JOURNAL on this subject. Mr. Metz, the manufacturer of the salvarsan brand of arspenamin, in protesting against its publication said that "the lot from which Dr. Sargent's ampules were taken met every requirement of the standard set for salvarsan," and intimated further that the reactions were "due to faulty technic, unsatisfactory conditions of ingredients used in preparing the salvarsan solution, or condition of his subjects." Such experiences as those of Drs. Sargent and Willis are not unusual, but should be reported. It is, of course, well known that untoward results followed the use of the old salvarsan—that made in Germany. With the old preparation, as well as with the new, reactions occurred and were probably due to various causes: sometimes to faulty preparations, sometimes to the deterioration of certain ampules of a batch, sometimes to idiosyncrasy of the patient, and sometimes to faulty technic of preparation or injection. There is no reason to believe that the arspenamin made in this country is more toxic or less satisfactory than that formerly imported from