lessly and wantonly false and fraudulent. Diggs pleaded guilty and was fined \$10 and costs.—[*Notice of Judgment No. 4424.*]

Brown's "935" Injection (Formerly H. W.).—The Doctor Brown Company, Philadelphia, shipped in interstate commerce a quantity of "Brown's '935' Injection (formerly H. W.)." The Bureau of Chemistry reported that the preparation was "a dilute solution of acetate and sulphate of zinc." Some of the claims made for it were:

"Invaluable as a Preventive and in the Treatment of Chronic Gonorrhoea, Gleet, Whites, Etc."

"A Preventive and a Certain and Speedy Remedy for Chronic Gonorrhoea, Gleet, Whites, Etc."

These and similar claims were declared false and fraudulent. The company pleaded guilty and was fined \$75.—[*Notice of Judgment, No. 4143.*]

Correspondence

TYPHOID IN AMERICAN CITIES

To the Editor:—I wish to comment on how false may be the impression of betterment of any one city's record comparable to neighboring cities as shown in the recent fifth annual report on typhoid fever. Each year the footnote reads that a false exaggeration is possible because nonresident deaths are recorded as well as resident deaths. For the cities in Connecticut there was reported to the state board of health for 1916, as total typhoid deaths, Bridgeport, 11; Hartford, 20, and New Haven, 12. This would give a rate per hundred thousand population of 9, 18.1 and 8, respectively. As printed in *THE JOURNAL*, the rates read 9, 6.3 and 8, respectively. The difference I find is that Hartford alone of the three cities returned resident deaths alone, seven in number. Instead of leading, Hartford either has a record no different from the previous year, or else if nonresident deaths do not count, New Haven's record becomes 5.3, with four nonresident deaths excluded. It would seem probable that other cities may have done the same to obtain a record, in which case such a point should be considered in obtaining the sixth annual report.

Also I would ask if it were not possible for a more critical criticism to be made of individual cities in terms of their own problems. For example, in 1915 the report asks why New Haven should continue to have ten times as much typhoid as Cambridge. Massachusetts probably and Rhode Island for certain are on record as having house closets even in rural neighborhoods. New Haven like the South, unlike the North, has yet numerous privies on sewered streets, let alone countless numbers on unsewered streets. New Haven's greatest sanitary expert, Prof. William H. Brewer, professor of sanitary science, Sheffield Scientific School, as president of the board of health placed himself yearly, even daily, on record for years that New Haven's typhoid problem was but one of privies. The survey for Springfield, Ill., placed that city also in the same class. Were it possible to make every city health officer criminally liable for typhoid deaths in excess of a rate of 10, I believe many cities the country over would have both active officials as well as a low typhoid rate by merely counting the number of privy vaults in their cities before abolishing them. Privy vaults and typhoid are not a special province of the South. An increase of population in Bridgeport due to munition workers should not explain an increased rate when New Haven had as great an increase of population for the same reason. Your compiler of statistics can then force improved rates from some cities by merely compelling the health officials of these cities to record resident and nonresident deaths separately as well as publishing their declaration as to the definite individual problem of that city which may not be water, milk or foods which yearly are the presumed factor.

D. M. LEWIS, M.D., New Haven, Conn.

[COMMENT.—The point raised regarding the possible false impression obtained by comparing one city with another, due to one city giving the total number of typhoid deaths and

another only the number of deaths in cases arising in the city, was taken into account. Effort was made to secure the total number of deaths from typhoid fever in each of the cities named. It is conceded that, in order to be fair, the comparison should be made on this basis in each instance, and the footnote referred to was appended to call attention to the possibility of error in this respect. If figures were called for to show separately the number of typhoid deaths of nonresidents, or in cases arising from causes within and without the cities, the judgment or opinion of the health boards or officers compiling the figures would enter in and the conclusions deduced might be still more unfair than in the first instance. The suggestion that our study should be more critical of individual cities in terms of their own problems is perhaps pertinent, but this would be practically impossible. The further suggestion "to make every city health officer criminally liable for typhoid deaths in excess of 10" would be extremely unfair in view of the grossly inadequate assistance and appropriations for health work in every city in the land, and the shortcomings in other conditions bearing on typhoid fever, over which the city health officer has no possible control.—ED.]

SHORTAGE OF SALVARSAN AN INTOLERABLE BURDEN

To the Editor:—I have noted with great interest and satisfaction the beginning of a determined effort on the part of the Chicago and some other medical societies, to do away with the salvarsan patent burden. It is a relief, at last, to see the city men taking up a matter which has become an intolerable burden to us all. I hope and pray that this will not prove merely a sporadic effort, but that *THE JOURNAL* and all active medical periodicals as well as every county medical society will make this matter a propaganda which cannot be ignored by Congress. D. POWELL JOHNSON, M.D., Muscatine, Iowa.

THE DATING OF BIOLOGIC PRODUCTS

To the Editor:—The report of the Council on Pharmacy and Chemistry on this subject (*THE JOURNAL*, March 3, 1917, p. 728) seems to me a distinct advance. In a discussion of the matter with those active in the Council, it was suggested that a statement of the procedures adopted in the Bureau of Laboratories of the Department of Health, New York City, as well as our attitude toward additional requirements, would be of interest to the readers of *THE JOURNAL*. In the course of this statement, certain of the regulations of the Council are questioned. This is not to be interpreted as a criticism, as the regulations adopted by the Council are evidently preliminary and no doubt will be amplified with further experience in their enforcement.

Our present rules covering the distribution of biologic products are as follows:

1. The label on all bacterial vaccines must state the date of preparation. (This means the day suspensions are made, standardized and killed.)
2. The label on all serums other than antitoxins shall state the date of bleeding.
3. The label on antitoxins shall give the "Date tested XXXX," this being the date of last test on this preparation.
4. The label on vaccine virus shall, like the antitoxins, have the "date tested," this being the date of last test.

We have no intention of extending the periods of potency of bacterial vaccines (four months) or of the serums (nine months) other than the antitoxins until we have very specific data on which to act. The only possible exception is typhoid vaccine. The additional and necessary potency tests demanded by the Hygienic Laboratory as at present carried out mean practically a month's time in preparation. We may be compelled, as soon as we have sufficiently fair presumption to act on, to label the vaccine for four months' potency after completion of the tests. Comparative work indicates that it may be possible to determine the antigenic value in about ten days. The Hygienic Laboratory is at work on this problem, and if the shorter period method is successful, no change will be necessary for the present.

It might be well to state briefly our method of handling vaccine virus. The green virus is shipped to the laboratory

in a portable ice chest, the temperature of which varies from 5 to 8 C. It is immediately finished on its arrival and placed in cold storage on the same day, the temperature of storage being -15 C. As a rule, two weeks at least must elapse before sufficient purification takes place so that the virus will pass the bacteriologic tests required by the Hygienic Laboratory. Potency tests are then undertaken. This consists of a vaccination of children, and 100 per cent. of "takes" is necessary to pass a virus. The period of time in cold storage before potency tests are made varies from four to eight weeks. As soon as a potency test is completed, a return date of six months later is placed on this batch of virus (three months in summer) whether it is issued at this time or not. All viruses are retested every month. When issue is started, tests are made biweekly, and should they fail to give 100 per cent. of "takes," the virus is recalled. As the batch is issued, the date of the last test is stated; but the date of return remains the same for all of this batch, as stated above. All virus is kept in cold storage till issued. We have nearly always on hand parts of batches which have been in cold storage six months or more after the first potency tests. This, being continually tested, if 100 per cent. potent, is used locally in the department. We reserve the privilege of issuing such virus in emergencies, if we have a guarantee that it will be used promptly. Within the city limits the distribution stations are controlled by inspection so that adequate refrigeration is maintained. Naturally we have no responsibility as regards vaccine virus purchased by others for distribution.

I think you will agree with me that the methods employed more than meet the demands of the Council and, with the human potency tests, comprise as near an ideal system as can be devised for the protection of the purchaser.

In the regulations in their present form there are several points which seem to me to leave opportunities for misunderstanding if not for actual fraud. For instance, "the date of killing of the bacteria shall be taken as the date of manufacture" (Section 3). Does not this leave a loophole by which bacterial suspensions could be placed in cold storage and heated at any time thereafter, and this given as the date of killing?

The intention of Section 4 is not clear to me. As I understand it, it seems to defeat the purpose of the preceding paragraphs. Does this mean that serums other than antitoxins and bacterial vaccines can be placed in cold storage for 364 days after actual preparation or date of bleeding and then issued with a new date (issue), implying that the latter date is the date of preparation or of bleeding? If so, I do not see how your regulations will improve present conditions.

The same objection holds as regards the "date of manufacture" of vaccine virus. I agree that the potency will be maintained to a large extent under the conditions given, but why not qualify, for example, that the actual date of potency test within the periods mentioned, will be accepted, the date of "testing" to be stated, not a pseudodate of preparation?

I cannot but feel that a uniform demand for the date of preparation should be demanded for all bacterial vaccines, the date of bleeding on all serums, and the last date of potency tests for antitoxins and for vaccine virus would be better than to allow substitute terms such as date of issue, etc. The duration of potency allowed could then be based on the facilities for storage and the influence of the latter on potency.

Another point which I should like to raise, which undoubtedly the Council is considering, is the labeling of certain products as to their contents and, wherever feasible, as to their potency. For instance, pneumococcus serum means nothing without a statement as to "type," and furthermore there seems no reason why the potency of the serum in relation to "type" should not be required. In the case of some serums, such statements are not immediately feasible because we know relatively little, first, as to the relationships of the bacteria used for immunization and, secondly, as to determining potency. Even the results of imperfect tests in some instances are preferable to none at all, and would at least indicate that every effort was being made to keep the product up to its highest efficiency. At least the physician has a right

to know everything concerning the content and potency of a product. When because of a lack of knowledge we cannot guarantee either the applicability to a given case or the potency of a product, we should frankly say so.

One great step in this direction would be a demand for the discontinuance of the term "polyvalent" unless evidence is submitted that a product is truly polyvalent. For instance, a polyvalent pneumococcus or streptococcus vaccine or serum is a practical impossibility with our present knowledge, yet such terminology is used and the physician misled.

WILLIAM H. PARK, M.D., New York.
Director, Bureau of Laboratories, Department of Health,
City of New York.

COMPULSORY HEALTH INSURANCE

To the Editor:—May I point out one feature of the health insurance bill as at present drafted which, while seemingly of especial interest to the medical profession, is really of equal interest to the community, but which is usually ignored? Certainly its importance to the beneficiaries of the bill and hence to the general community seems to be overlooked. I refer to the fact that no specific price is set for the services of the physicians who will be required to do the actual work in caring for and protecting the health of the workers. It is stated by the sponsors for the bill that it is desirable to leave the determination of fees to the commission. It is estimated by those favoring the bill that for \$2,000 annually physicians need make only from twenty to thirty calls a day, and we are given to understand that such an assured income is a very liberal one for a physician, while the amount of work required of him is sufficiently light to permit him ample time for sleep, rest, recreation and study. Striking an average with these figures, we find that twenty-five calls a day total 9,125 calls a year, for which a return of \$2,000 a year is to be considered liberal! This figures out 22 cents for each call. Do the well intentioned sponsors of the bill really believe that human beings practicing medicine are so different from human beings in other walks of life that for 22 cents they will render service worth much more than 22 cents? Or do they believe that medical service rendered at a cost of 22 cents a call ever was or ever will be competent and thorough? It is well for all to understand that incompetent, hasty and slipshod medical service is much worse than none at all, for unaided nature can do better by the sick than the careless and hasty physician. It also cannot be too emphatically stated that no decent and self-respecting physician who cares anything about the quality of his work and about the effect of his service on his patients' health, can, single handed, make twenty-five calls a day and have left time enough to eat, rest, sleep, study and even sometimes play. In these swiftly moving times, what physician can keep afloat who has not time to read and study? And what human being can profit from reading and study attempted when physically and mentally exhausted? Therefore let all concerned clearly understand that, if it is sought to compel the earner to have medical attention which he now often fails to get, though he may sorely need it, the medical attention is worth having only if it is carefully and competently administered, and careful and competent medical service cannot be had at a price which will buy only the poorest and most incompetent. An underpaid doctor will not do good work; an overworked doctor cannot do good work.

M. SCHULMAN, M.D., New York.

Repairing Rubber Gloves.—N. I. Spriggs, M.D., a correspondent in the *Lancet*, March 31, 1917, describes his method of repairing rubber operating gloves by vulcanizing them, similar to the manner in which automobile tubes are repaired. Spriggs devised an electric vulcanizer for the purpose which he says is used in many military and civil hospitals, and a saving of 50 per cent. in glove bills may be effected in this way. The patches applied in this manner are so small as to be almost impalpable, they do not come off even after repeated sterilizations, a new finger can be put on, a long slit can be repaired, a new wrist affixed or two damaged gloves made into one good one.