

The timidity of the manufacturer at a time when antitoxin was little known and less in demand, was no doubt warranted. The conditions of the trade at that time, too, compelled the manufacturers to place their serums on practically a storage or commission basis, to secure its introduction to the profession. It is apparent, after looking into the findings of scientific investigators, that the continental opinion on this point has been more generous in the matter of time than has been the case in America. Any one who had visited the leading Biologic laboratories five years ago and again to-day, will be prepared to admit that great advances have been made in the procedure of manufacture and in the consequent quality of the serum. Granting that the potency period of the serum of a few years ago may have been of shorter duration. It is reasonable to concede that the improved product of to-day should be of longer potency. It is certain that the more uniform methods of testing and re-testing, have contributed to a fund of information on the subject. Abba of Turin, McFarland of America, Chiadini of Italy, Roux of Paris, Libbertz, Marx of Frankfort, and Miller of America, in the sequence named, have published their experiments, each showing that this empirical belief was not well founded. The scientific standing of these men is above reproach and their reputation well establish. The consensus of their opinion would show that two years was a perfectly safe dating, and although others are satisfied to place it at five years, Libbertz, in particular, is of the opinion that any diminution in antitoxic strength occurs during the first few months, but that its strength remained unimpaired for years after.

The report by Marx is concluded with the strong statement that "any mistrust of old serum is unfounded." Miller, whose work has been confined to American serums which have been returned from the market as "expired" and useless, concludes his report with the words "the demand for fresh serum is not justified."

With these facts before us from competent authorities covering the work of years, we are of the opinion that the present time limit can, with safety, be very materially extended, and that even a three year old serum may be just as effective as one that is only a month old. There seems to be no positive evidence adducible to support the contrary opinion beyond the accepted habit of years.

IRON THERAPY IN THE TREATMENT OF SMALLPOX.

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As far back as 1893 my attention was first called to Pepto-Mangan (Gude). But it was not until the spring of 1895, when I was appointed Superintendent of Quarantine and Smallpox Hospital at St. Louis, that I had opportunity to test thoroughly its merits.