

"The average number constantly on sick report was 104, or 40 per 1000, of whom 74, or 28 per 1000, were under treatment for disease, and 30, or 12 per 1000, for wounds, accidents and injuries.

"The number of deaths from all causes reported was 49, or 19 per 1000 of strength. Of these 28, or 11 per 1000 of strength, died of disease, and 21, or 8 per 1000 of strength, of wounds, accidents, and injuries. The proportion of deaths from all causes to cases treated was 1 to 72.

"The number of discharges on 'Surgeon's Certificate of Disability' was 71, being at the rate of 27 per 1000 of mean strength.

"There were entered on the registers the histories of 5210 surgical cases of the late war, making a total of 235,398 now recorded; also, additional information respecting 9661 cases already recorded, and prepared for revision abstracts of 8947 cases which were not placed on the permanent registers. The hospital record of 22,756 men was searched; 16,008 names were indexed. The Pension Medical Examiners' reports of the condition, at the latest dates, of mutilated men, were transcribed in 2564 instances. Histories of surgical cases were furnished to other departments of the Government in 65 instances.

"The Army Medical Museum continues to increase in the number and variety of specimens and its consequent usefulness. The number of specimens added during the year was 1516, a present total of 15,018.

"The number of visitors was over 15,000 during the year."

We are further told that the first part of the Medical and Surgical History of the War is near completion, and it is to be hoped that Congress will make an ample appropriation for the publication of the remaining parts. The publications which have been issued already from the Surgeon General's Department have proved to be most valuable contributions to the science of Surgery, and have redounded to the credit of the army medical staff, and been in the highest degree creditable to the country.

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ART. XXXV.—*Complete Report of the Board of Health and Board of Consulting Physicians, as presented to the City Council, December 12th, 1871; to which is annexed Instructions for Controlling Smallpox Contagion, adopted by the Board of Health of Lowell, Mass.* 8vo. pp. 18.

FROM this very interesting report we select a few facts and admissions, inasmuch as they furnish indisputable proof of the value of vaccination, when once the human system is effectually brought under its influence, as a certain and permanent protection from the contagion of smallpox, as well as of the necessity of revaccination to insure success and as a test to determine whether an abiding influence has been secured.

"Our experience," say the Board of Consulting Physicians, "in dealing with the present epidemic, compels us to place *isolation* before vaccination. The latter has not seemed to afford that protection which has usually been ascribed to it." At particular stages of the epidemic, vaccination, the report remarks, did not arrest the progress of the disease as was expected. In individual cases it has not prevented those *apparently* well vaccinated from having a violent, and, in several instances, a fatal attack of smallpox. A careful examination of quite a number of very grave cases at the hospitals distinctly showed marked cicatrices—some large and well pitted—the result, as the patients said, of *inoculation for smallpox* itself, or of vaccination with the virus of cow-pox. Still there were, it is admitted, other patients in whom the disease was much modified—rendered lighter in form or shorter in duration—by the

effects of vaccination. There were many instances, also, of individuals—including several infants—subjected to the greatest exposure, but who had recently been successfully vaccinated, remaining perfectly protected. The most striking proof of the protective power of vaccination was found among the employés of the mill corporations. Under the direction of the agents of these corporations, a more systematic and thorough course of vaccination has been pursued among the operatives and others connected with the mills, than among the other inhabitants of the city of Lowell. The rule has also always been to remove at once every case of smallpox or varioloid to the corporation hospital as soon as discovered. From the commencement of the epidemic in February, 1871, we are told that only *forty-nine* patients had been so sent from the mills and their boarding-houses, and in no instance have other parties exposed at the time, taken the disease. Twenty of the forty-nine were females, and only two died. It is true, however, that some of the operatives not residing in the corporation boarding-houses had been taken to the City Hospital, and others, prior to September 25th, were treated at their own houses, but these were few in number. As the persons connected in some way with the mills comprise one-third or more of the population of the city, the proportionate number sick with smallpox or varioloid from this class has been, hence, relatively, very small.

The good results derived from the uniform and prompt removal from the mill corporations of all cases of smallpox and varioloid, of course speak in favour of isolation as a prophylactic. Another striking fact, however, in favour of the protective power of vaccination under exposure, is deducible from the fact that very few school-children contracted the smallpox; the rule for admission into the public schools requiring evidence of successful vaccination having been always rigidly enforced. While the Board of Physicians were constrained to place *isolation* as the more successful agency in arresting the spread of the epidemic, they would by no means be supposed to undervalue the importance of vaccination, "*when properly performed.*" Of two things the members of the Board declare themselves more fully convinced than ever, namely: 1st. Of the frequent imperfection of vaccination, either in the manner of its performance, or of some defect in the virus employed; and 2d. Of the "*absolute necessity of revaccination.*" The latter is indispensable, whether we admit that the protective efficacy of the vaccine prophylaxis gradually diminishes with the normal changes that take place in the human body, as it advances in age (and therefore revaccination at proper intervals becomes necessary to test its continuance); or that, often, the first or even subsequent vaccinations, may not have produced a complete prophylaxis, and therefore, the operation should be repeated again and again, until it ceases to produce any effect, "*when,*" the Board admits, "*its protective power will continue for life.*"

D. F. C.

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ART. XXXVI.—*Lessons on Population, suggested by Grecian and Roman History.* By NATHAN ALLEN, M.D., Lowell, Mass. 8vo. pp. 16. Boston, 1871.

IN this well-written and highly-suggestive pamphlet, Dr. Allen has examined the lessons on population, based upon facts deducible from the history of the downfall of ancient Greece and Rome. The substance of the essay appeared originally in the *Congregational Quarterly* for October, 1871. Dr. Allen