

preparing and sterilizing vessels, test-tubes, knives, scissors, and needles, is done by the student himself. Each species of bacterium is examined microscopically, in colonies, and individually, and in stained and unstained preparations. Animals are inoculated with different kinds of pathogenic bacteria, and after death, both fluid and solid parts of the body are examined for the bacillus or micrococcus that sets up the disease. Cultures are made by planting some of the blood or serum in a piece of solid tissue and the result compared with the original with which the animal was inoculated. There is no end to the work. Still if one spends all his time at it, a very good practical knowledge of the subject can be obtained in the month. And for those who wish to go on and make further researches, extending over a second or more months, a separate room is provided. Amongst the more practical benefits may be mentioned the easy methods of preparing specimens of the sputa of consumptive patients for diagnosing the tubercle bacillus. After trying in vain, perhaps repeatedly, to get a pure culture of a certain kind of bacterium, but instead, always getting a mixture of different varieties, the cause of the mixture being due either to carelessness in sterilization, or exposure to the atmosphere of the room for a few seconds, long enough for spores of other kinds besides the one planted to drop into the prepared soil, one learns how exceedingly careful and thorough he must be even to the slightest detail, in order to make antiseptic surgery a success.

Shoulder Braces.

The latest opinion is that of Dr. Bernon Roth, F.R.C.S., London, Eng., to the effect that shoulder straps, braces, etc., are wholly useless. If effective in preventing stooping, they injure by preventing the action of the muscles passing from the spine to the scapulæ. Similarly we open our eyes when we read what Lydia E. Bicker has to say in *Sanitary Record* on Stays and Dress Reform. She says; "I hold that in both of the propositions in which the proposals are made, viz., that the weight of the clothing should be raised to the shoulders, and that there should be no support or girdle around the waist, the dress reformers preach a false doctrine, both physiologically and æsthetically, and that the authors of the Bath paper are right when they affirm, 'If not laced too tight, the modern corset,

by clasping the waist and supporting the bosom and back, constitutes a convenient combination of the different forms of girdle which have been found useful by the women of all civilized nations.'"

STATE MEDICINE.

THE following interesting particulars regarding the health of the troops serving in the United Kingdom is taken from the report of the Army Medical Department for 1887. The total strength during the year was 92,601 men. The number of admissions to hospital was 78,089; there were 632 deaths. The average number of daily sick was 4360.31; the average sick time to each soldier 17.18 days, and the average duration of each case of sickness 20.38 days. The ratios per 1,000 strength are, for admission 843.3, for mortality 6.68, for invaliding 17.64, and for constant inefficiency through sickness 47.08. Amongst other facts it is interesting to note that in a body of men, kept systematically vaccinated, and who from their habits are likely to be much exposed to contagion, there were only 11 admissions to hospital on account of small-pox, while not a single death occurred, the virulence being in all cases thus lessened on account of vaccination. The total vaccinations during the year were 715 primaries, and 40,824 secondaries. Of enteric fever there were 145 cases and 43 deaths, or a deathrate of .46 per 1,000 and a percentage of deaths to cases of 29.6. There were 8,226 admissions for primary syphilis; 3,097 with 5 deaths from tertiary syphilis, and 10,632 for gonorrhœa, making a total of 21,965 admissions or a ratio of 23.1 per centum. To this must be added 3 per cent. of admissions for single venereal ulcers. The number of men constantly sick during the year from this disease was 19.2 per 1,000. The deaths from tubercular diseases amounted to 1.17 per 1,000.

Degrees of Sanitary Science.

Degrees of Sanitary Science are now being instituted in many Universities. Cambridge has been the first in Britain, and now the University of Madras has instituted a degree of sanitary science. The candidate must have passed his M.B. and C.M., and must present certificates of having attended courses in hygiene (fifty lectures), general pathology (fifty lectures), analytical chemistry (six months' course), and one course in sanitary engi-