

which the Act confers for the making of by-laws. Urban and rural authorities alike are permitted to make by-laws regarding the following matters :—(1.) The cleansing of pavements and footpaths ; (2.) The removal of house refuse and the cleansing of ash-pits, &c. ; (3.) The regulation of common lodging houses as to the number of inmates, the separation of the sexes, cleansing and ventilation, removal of lodgers suffering from infectious diseases, &c. ; (4.) The regulation of houses and yet let as lodgings ; (5) The regulation of public mortuaries ; and yet let as lodging and accommodation of hop pickers. In addition, urban authorities have power to make by-laws regarding offensive trades, the regulation of public walks, pleasure grounds,

market places, slaughter houses, cab stands, burial grounds, &c. And perhaps most important of all, they have very ample powers as to the laying out of new streets and the erection of new buildings. These by-laws take cognizance of site, foundation, walls, chimneys, and roofs ; of ventilation, drainage, ashpits, cesspools, &c. ; in fact, of everything that is likely to influence the health of the inmates. All proposed by-laws are considered by the Local Government Board, and it is only after full explanation that they are adopted. The Board, too, issue sets of model by-laws for the guidance of local authorities, and Knight's illustrated edition of these is a most valuable guide in the practical details of sanitary procedure.

THE STRENGTH OF TEA—INTERESTING INVESTIGATIONS

CONSIDERING its universal use as a beverage, it is surprising how little is known about tea, or any standard tests of its quality and strength. It is a subject of very great importance. It appears ordinary tea drinkers are constantly taking full Medicinal doses of Theine, which can hardly fail to have an injurious effect upon health tissues. An exchange says, the quality of tea generally spoken of under the term "strength" is very vaguely defined, and as yet no relation has been ascertained between it and the amount of any particular constituent of tea. Considering the physiological properties of theine, the characteristic and essential alkaloid of tea, it might be supposed that the "strength" of tea depended to a considerable extent upon the amount of this substance present in it, and this view assumes some probability in consequence of the variable statements

that have been made as to the quantity of theine obtained from various kinds of tea, which estimates range from 1 to 2 to nearly 6 per cent. A recent investigation undertaken by Paul and Cownely the results of which have been published in the *Pharmaceutical Journal*, has shown, however, that the variable yields previously obtained were probably due to imperfect methods of analysis, and that theine is a much more constant constituent of different kinds of tea than had been supposed. It was, in fact, found that in upwards of twenty samples of Indian and Ceylon teas, commercially valued by the brokers at prices ranging from 7d. to 3s. per pound, the proportion of theine varied only from 3.22 per cent. in the lowest to 4.66 per cent. in the highest. In the case of two samples of tea selected by experienced judges as representing extreme differences in "strength,"