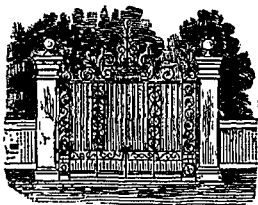


— Outside the Gates. —

WOMEN.



OUR contemporary *London*, a journal of Civic and Social Progress, contains a very interesting account of the Progressive Women Members of the London School Board. Miss Davenport Hill, Miss Eve, and Mrs. Ruth Homan, it says, are all regular attendants. The first lady has represented the City since 1879. She comes of a family of philanthropists, the name being familiar in the annals of social and educational reform in England. At the Board Meetings she sits quietly knitting, but closely observant of all that is going on. She takes great interest in promoting domestic training. There are now nearly 150 cookery centres, and about 50 laundry centres, to which children are sent from surrounding schools, and only those who are in the secret can tell how much the progress and success of these centres owe to Miss Davenport Hill. She has given very special attention to Industrial Schools.

Miss Eve, one of the members for the Finsbury Division, is very modest about the good work she does on the Board. Her brother is head-master of University College School, and a scholar of high standing. With the exception of Saturdays, every day finds her engrossed with the duties of membership, if not at the Embankment Offices, then at one or other of the nine schools in her district. In every school in Clerkenwell, Miss Eve is a familiar figure. Her visits are persistent, and her interest attaches itself to teacher and scholar alike. She has strong views on the subject of domestic economy. In her opinion the present system of teaching domestic economy has no permanent educational effect whatever, and she would supplement the teaching with easy lessons in elementary science such as is calculated to lead children to observe and reflect for themselves. She is anxious, also, that all needlework should be made as practical as possible. She sits on four sub-committees of the School Management Committee, those in connection with the Teaching Staff; Instruction in Cookery; Laundry and Needlework; Physical Education; and Instruction of Pupil Teachers. She is also a member of the sub-committee for Industrial Schools Officers' Cases; and also of the sub-committee for the Shaftesbury Training Ship.

Mrs. Ruth Homan belongs to the Tower Hamlets Division, where, at the last School Board election, she scored a notable victory, though this was her first appearance. She is the daughter of Sir Sydney Waterlow. Of the 54 schools in the Tower Hamlets Mrs. Homan takes charge of the dozen in Poplar and the Isle of Dogs. She has started boot clubs in connection with some of the poor schools under her charge. The children subscribe two-thirds of the cost, and the remainder is paid by the club from subscriptions which Mrs. Homan raises among her personal friends. She is also connected with the Schools Dinner Association. Truant girls find in Mrs. Homan a good friend. In her opinion an industrial school for

girls is one of the chief requirements of the School Board. She also takes a kindly interest in the mentally deficient and the deaf and dumb, whose surroundings it is her endeavour to make as bright as possible.

Science Notes.

SNAKE POISON.

A COMPLETE investigation into the subject of snake poison, says Dr. Halliburton, must attempt to answer three questions. 1. What is the poison? 2. What is its physiological action? 3. How can one best prevent or counteract this action? Many attempts have been made to answer the third question, but while the first and second remained unanswered, such attempts were necessarily gropings in the dark. Of late years, however, a great deal of valuable work has been done in determining the nature and effect of snake poison, and the results are somewhat remarkable. The poison appears to belong to the class of substances known as proteids, which include also our most valuable food materials. Poisonous proteids are not to be distinguished by any well-marked physical or chemical properties from the non-poisonous or food proteids, and their existence was at first considered very improbable. Nevertheless, they have been obtained from both animals and vegetables, and it has been shown that, in the case of disease produced by bacteria, the poisonous matter is most frequently proteid, although it is sometimes alkaloid in nature.

Even in the alimentary canal of the human being, poisonous proteids are formed during the ordinary course of digestion. The peptones which are produced from proteid food by the action of pepsin (the ferment contained in gastric juice) are poisonous, as also are the proteoses or albumoses, which are intermediate stages between the proteid introduced in the stomach and the peptone into which it is ultimately converted. It has frequently been said that food in the alimentary canal is practically outside the body, and so the body is protected from these poisons by the membrane lining the alimentary canal. The cells of this membrane have the power of regenerating albumin from peptone, and it has been suggested that the headache, due to disordered liver, arises from blood-poisoning by the crude products of digestion of proteids, which may abnormally find their way into the blood. At any rate, it has been proved that these products of digestion from the alimentary canal of a healthy animal will poison a dog when injected into the blood to the extent of 0.3 of a gramme to 1,000 grammes of the dog's weight.

The production of the snake's poison is not altogether dissimilar to the above. It results from the activity of a gland (the poison gland) working on the raw material supplied in the blood. The poison is believed to be an albumose or a number of albumoses, and to be produced from the albumins of the blood by a process of hydration. The process is, therefore, similar to digestion by pepsin, if the latter stopped short at the albumose stage instead of being continued to that of peptone. To these two we may further compare the conversion of starch into sugar by saliva, and the production of sugar from glycogen by the

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