DEC. 2, 1893]

Outside the Gates.

WOMEN.

THE following important letter has been sent by the Countess of Shaftesbury to the press, and as it is of vast importance in connection with the future education of the nation, we gladly give it prominence :--

RELIGIOUS INSTRUCTION IN BOARD SCHOOLS.

SIR,---May I call the attention of your readers to the existence of the Women's League for the Maintenance of National Christian Education? This league has been formed in consequence of the grave development of the question of religious instruction in Board schools. We hope to gather members at once from all parts of the country, but for the present the actual operations of the league will be confined to the London School Board area, where the battle for Christian education will have to be fought at the School Board election next year, and where, therefore, it is thought wise to concentrate our forces ; later on it is proposed to extend both the organisation and the operations of the league. It is hardly necessary to remind your readers of the tremendous issue at stake in London-the action of the London School Board has a far-reaching influence for good or evil beyond its own boundaries-but we may at least endeavour to rouse all Christians to action by pointing out that every effort will be made by our opponents to win the battle. They are trying even now to confuse the issue by representing the struggle for Christian education as an attempt to capture the Board Schools for a particular religious party, whereas no other question in our time has so helped to bring together Christian men and women of all schools of thought. The Women's League for the maintenance of National Christian Education knows nothing of party, but invites the co-operation of all, whether Churchpeople or Nonconformists, who believe in Jesus Christ as their Lord and their God. The league is based on the principles of liberty of conscience and the rights of parents. Christian parents and Christian ratepayers are saying to their rulers, "You compel us to send our children to school, you compel us to pay rates to support the schools, therefore you must make the education such as we can conscientiously accept." Especially are the Christian women and mothers of England saying this, and the league is meant to unite their voices and make them effective. We are entirely prepared to concede to non-Christians the rights which we demand for ourselves. The Jewish religion is at this moment being definitely taught to Jewish children in the Board schools of London by Jewish teachers, who are paid from the rates to which we are compelled to contribute, and to which we would contribute wil-lingly, provided that Christian instruction as definite might be given to the children of Christian parents, otherwise liberty of conscience and parental rights are Applications for forms of admission and violated. further particulars should be addressed to the hon. sec., Miss Helen Baillie, 43, Norfolk-square, Hyde-park, W.

HARRIET SHAFTESBURY, President.

—Science Hotes.—

PROTECTIVE MIMICRY.

Prof. E. B. Poulton, of Oxford, has recently been experimenting with the larvæ or "grubs" of certain butterflies in order to ascertain whether their colour is dependent on the colouring matter contained in their food. He divided the eggs of one butterfly into three lots, and fed the larvæ (in darkness), one division on green leaves, a second on etiolated leaves (i.e. leaves grown in darkness and hence of a yellowish white colour), and the third division on the white stalk of cabbageleaves. The third division failed to produce their normal colour, but the two others were coloured as usual.

The great interest attaching to the colour of the larvæ is due to the fact that, in this respect, they frequently resemble their surroundings whether they live on green leaves, brown bark, or elsewhere. Some tropical butterflies resemble the leaves among which they are found so closely, that even the parasitic fungi of the leaves are imitated on the butterfly's wing. A very common caterpillar in this country is one that is coloured brown like a twig, and spends much of its time attached to a twig by its posterior legs, while its body stands off at an angle steadied by an almost invisible thread stretched from the twig to its head. Standing motionless in this position, the closest observation is necessary to distinguish it from a small branch of the twig.

This "protective mimicry" serves to defend the animal possessing it from the attacks of its enemies, and is not confined to larvæ and butterflies, although in the case of the higher animals the colour can only be accounted for by the theory of natural selection. Moreover, the colouring of the larger animals, such as the Carnivora, is useful in permitting them to approach their prey unseen. Thus the bear of temperate regions is brown, whereas the Polar bear is white, like most animals inhabiting the snowfields. Other animals such as the stoat, squirrel, and Scotch hare change the colour of their coats with the season, the winter coat of the stoat being the fur known as ermine.

A certain amount of imagination is necessary on the part of those who have never seen the tiger in his native haunts, to enable them to believe that his coat is such as render him almost invisible. His reddishbrown fur and black stripes seem conspicuous enough when seen in his cage at the Zoological Gardens. Travellers, however, tell us that a favourite haunt of the tiger is a dried-up water course, covered with tall, dry, withered grass. In the brilliant tropical sunshine the grass appears so rich in colour, and the shadows so black, and the whole effect is so dazzling to the eyes, that a tiger is with difficulty distinguished. A traveller, who had shot tigers, related how on one occasion he was unable, at first, to discern a tiger which his native servants were pointing out to him, and urging him to shoot before it had time to spring on them. At length he caught the flash of its fierce eye, and then saw its whole form revealed.

The leopard is in the habit of climbing trees, and lies in ambush among the branches. This is, probably, the reason of its spotted skin which bears some resemblance to a brown tree trunk lit up with brilliant sunlight, and flecked with the shadows of leaves.

The tawny lion is usually found in waste, sandy places where his somewhat dull and unvariegated coat



