ity of the feminine sex! What Radicals these women are, say the conventional men, who do so much to fetter the position of women. What Atheists these "new women" are, said the clergy, when they heard of Mrs. Stanton's resolve.

Now it is a very curious and incontrovertible fact that the clergy, as a body, are opposed to the granting of political or civic power to women. It is often said on good authority that it is the clerical element in the Universities of Oxford and Cambridge which prevents the granting of degrees to the women students. Mrs. Stanton argues that the clergy become imbued with the anti-woman feeling, through reading the monastic parts of the Bible. And it is these parts which she proposes to remove. It will be interesting to see the revised new edition of the Woman's Bible.

Lady Henry Somerset has recently been protesting, both in writing and speaking, against the disabilities women suffer from in not being admitted into the Church. She maintains that women would be essentially good preachers, and that it is an absolute injustice to exclude them from the Church. Parish work is largely done by women; they are missionaries, both medical and religious—they care for the sick, for the lepers and for the diseased in body. And there is no reason why they should not minister by their preaching faculty to morbid minds and unhealthy morals. The Woman's Bible has aroused great prejudice among a large section in the United States, but such a drastic attempt at reform may do much to bring home to those who disapprove the evil which has caused the revolt of American women.

The Salvation Army has done a splendid work in preparing people's minds for the truth of the perfect equality of woman and man in missionary and religious work.

In our vast metropolis, where there is an incessant stream of visitors from all quarters of the world, and the sights and entertainments of the great city surpass in number and variety those of any other country, it is a matter of surprise that before now a system should not have been organised by which London and its environs could be introduced to strangers, and as well to residents, in a thorough and exhaustive manner.

This is the *raison d'être* of the "Lady Guide Association," 352, Strand, and in view of the waste of time and money now occurring through the ignorance of visitors to the metropolis, a plan is inaugurated by which all those visiting London may be protected against imposition, and fully provided with all necessary information. The "Lady Guide Institution" is in communication with the leading centres of Europe, and those purposing to visit London have only to signify their intention to the Secretary of the Association in order to receive in advance instructive suggestions as to travelling routes, expenses, where to stay upon arrival, whilst they will be met at the railway terminus, conducted all over the metropolis, and assisted in any and every direction they may require, having regard to their social and intellectual wishes.

Science Notes.

VEGETABLE HYBRIDS.

Anyone who compares the choicest products of our fruit and flower shows with the plants he finds growing wild in the hedgerow and the meadow, cannot fail to be impressed with the achievements of the agriculturist and horticulturist. It must not, of course, be forgotten that the wild flowers of other countries than our own have been at the disposal of the cultivator, but nevertheless, we find that all the choicest fruits and flowers of richest colour are the result of careful selection and artificial crossing.

Crossing, as most of our readers are no doubt aware, means the transference of pollen from one flower to the stigma of another, where the pollen grains grow and reach the ovules or immature seeds, thus fertilising them. When crossing is artificially performed the pollen is usually conveyed on a small brush; when it occurs naturally it is effected by the agency of insects or of the wind.

The plant produced from a seed partakes of the characteristics of both parents, that supplying the pollen grain and that supplying the ovule. If these two parents are sufficiently unlike to belong to two different species the result of their union is called a hybrid. Hybrids may be naturally produced, but by far the greater number are probably artificially produced. In fact, it is almost impossible to estimate the number of artificial hybrids since the fashion in flowers is constantly changing and thus hybrids are allowed to die out entirely and are replaced by new ones. For example, it is said that on an average about sixty newly-bred roses come into the market every year, and in 1889 the number was 115. A cultivator of roses near Vienna has in his garden 4,200 different kinds, but he is far from possessing every sort. According to his estimate the number of different varieties produced by the trade up to the present time amounts to 6,400.

Kerner, in his "Natural History of Plants," comments on the many erroneous statements which are current with regard to hybrids. It is frequently said that they are not fertile except when crossed with one or other of their parents. This is not so. Many hybrids are cultivated from seeds, though it is frequently the case that they may be more easily cultivated (and with less variation) by means of cuttings, bulbs, &c.

If a hybrid is crossed with one of its parents the next generation will, as one would expect, resemble that parent more. If it is again crossed by that parent the resemblance is still more striking; so at length it can be brought back to the form of one parent, all characteristics of the other being gradually eliminated. The number of generations required to bring back the hybrid in this way having been determined in the case of each parent, one has an exact means of judging which parent predominates over the other in the hybrid. If A and B produce a hybrid C, which can by crossing with A return to the form A in three generations, while if crossed with B it does not resemble B exactly until the fourth generation, it is clear that A predominates over B in the hybrid which they produce.

According to Kerner the practice of artificially crossing flowers dates from "time immemorial," and we shall not be exaggerating if we say that up to the present, the nineteenth century alone has seen the production of 10,000 hybrids.

previous page next page