

scientiousness of the masters, the system had upon it indelibly the stamp of unnaturalness.

#### AUSTRALIAN UNIVERSITIES.—

Australia appears to be keeping well abreast of the age as regards the education of women. The Universities of Melbourne, Sydney, and Adelaide are open to women; and, although the advantages thus presented seemed at first to be little appreciated, the number of lady students, past and present, now amounts to nearly a hundred. No special inducements are offered; the same conditions must be observed as those which govern the admission of male students. Excepting membership in the Senate, women are eligible for all posts of learning and distinction. The University of Adelaide claims the honour of commencing the new departure in 1876; Melbourne followed, and then Sydney. The registrars report that, in a general way, the female aspirants go through the course with as much credit as the men. At Adelaide a woman scored a more brilliant success in the Science Division than any of her competitors; whilst Melbourne has now nine lady graduates, and Sydney ten, of whom three have won the M.A. degree. These first fruits of a wise and liberal policy in the administration of the Australian Universities will, we trust, lead to a large extension of educational advantages throughout the colonies.—*The Publishers' Circular* (London).

THE COST OF A MAN-OF-WAR, 1789-1889.—A hundred years ago the expense of building a ship-of-the-line of 100 guns in the Royal dockyards was £67,600. This included the cost of coppering and copper bolting, and of masts, yards, rigging, sails, anchors, cables, and all other boatswain's and carpenter's stores. This

was the original expense of the *Royal George*, a 100-gun ship, launched in 1788 at Chatham. She was 2,286 tons, and was 190 ft. long, and 52 ft. 5½ in. broad. The modern equivalent to the old wooden line-of-battle ship of the first rate is the first-class ironclad battle-ship, and the *Trevelyan* may be regarded as a good specimen of the finest and most recent vessels of this type. Her original cost, exclusive of armament, was no less than £862,794. She is of 11,940 tons displacement, and is 345 ft. long and 73 ft. broad. Thus, while the first-class battle-ship of a hundred years ago cost only about £29 11s. 4d. per ton, the first-class battle-ship of to-day costs over £72 5s. per ton.

THE SPEED OF BIRDS.—It has been found that the swallow can fly at the rate of ninety-two miles an hour, and the rapidity of the swift to be not less than two hundred and fifty miles an hour. If it can move at this rate even a short distance, the swift must be ranked as the swiftest of birds. The common crow can make about twenty-five miles, the eider duck ninety miles, the eagle one hundred and forty miles, the hawk and many other birds one hundred and fifty miles per hour. The flight of migratory birds does not probably exceed fifty miles within the hour. A falcon belonging to Henry IV. of France escaped from Fontainebleau and was found at Malta, having made at least 1,530 miles within twenty-four hours. Sir John Ross, on the 6th of October, 1860, despatched from Assistance Bay two young carrier pigeons, and on October the 13th, one of them reached its dovecot, in Ayrshire, Scotland. The direct distance being about 2,000 miles, the speed was comparatively slow. Birds whose flights have excited astonishment have been generally assisted by favourable aerial currents.