

MARVELS OF COLOUR IN THE ANIMAL WORLD.

A very interesting and instructive popular science lecture was delivered by Prof. Prince, Commissioner of Fisheries, in St. James' Hall, under the auspices of the "United King's Daughters," on the 26th March.

The Chairman, Sir Charles Hibbert Tupper, K.C.M.G., introduced the lecturer in his usual happy manner. The lecturer, after explaining the decomposition of light, went on to show that white animals and silvery creatures, like fishes, illustrated specular reflection. Striated surfaces broke up sunlight into prismatic colours, and produced in the feathers of birds, wing-cases of insects, pearly shells, etc., most gorgeous hues. Similar tints might be due to what the physicist calls "thin plates," instances of which occur in jelly-fishes and many glassy marine animals. One of the most frequent causes of colour was pigments or actual colouring matter in the tissues, in the skin, hair, or feathers. Three forms of pigments might be distinguished, viz: minute corpuscles, capable of expansion and contraction and usually stellate in shape, or larger masses called chromatophores, with muscle and nerve supply and controlled by the optic ganglion or, finally, a fluid bathing the tissues in the form of a dye. External conditions affected the pigment, the coloured particles altering their shape, and quickly changing the colour of the skin, as in the chameleon.

Most interesting examples of colour were found in very young animals. By studying them we gained information about adult colours. Animals are usually colourless in the earliest days of their existence. Amongst worms, insects, crustaceans, ascidians, fishes, reptiles, birds and even the highest animals there is a time when they are colourless and wormlike in form. The surface of the sea is a vast nursery for young creatures of various kinds exhibiting these characters. When, at a certain stage, colour appears, it is found to correspond to the form of the body. It occurs as repeated stripes or patches. A young cod, for instance, when three days old, is an insignificant eel-like creature, transparent and with four bold stripes of black on the sides of the body. These stripes later break up into spots. This spotted or striped character prevails amongst myriads of young animals. Wild pigs when young are