

suggest the interpretation that Nature expresses a purpose, and that since the scientifically known system of Nature, being largely unconscious, cannot be credited with a purpose, we are led to think of a Creator's purpose. The fact that the scientific ideal is limited to a naturalistic description does not in the least imply that we need refrain from idealistic, transcendental, mystical, or religious interpretation—the only kind of interpretation there is. The second lecture dealt with the disharmonies in Nature and the difficulties to which they give rise in the teleological interpretation of a Creator's world, but such disharmonies, often exaggerated, need not obscure the greater fact of an overriding harmony. The final lecture, on "Lessons from Evolution", based on the fact of a real progress in organic evolution, is a plea for a ranging of human endeavour in line with the trends which have been conspicuously progressive in the re-human ascent of life.

Control of Canadian Insect Pests

THE Canadian Government and the Empire Marketing Board are jointly financing a search in Europe for the parasites of certain Canadian insect pests. The Canadian Department of Agriculture has asked the help of the Parasite Breeding Laboratory at Farnham Royal, Bucks, which is maintained by the Empire Marketing Board, in combating the present severe outbreak of a forest insect, *Diprion polytomum*, and also in fighting the plague of balsam woolly aphis, which is causing serious injury to balsam fir in the Maritime Provinces. If the balsam woolly aphis infection spreads throughout the eastern forests, as it threatens to do, enormous losses in pulpwood will result. The only hope seems to lie in the introduction of a parasite to check the advance of the aphis. The pest came originally from Europe, but it is not common, and an intensive search will have to be made in Central Europe to find its insect parasites. These insects will then be brought to England and bred up at the Farnham Royal laboratories. Nearly one million insect parasites have been bred and dispatched from time to time from Farnham Royal to all parts of the Empire. The wheat-stem sawfly, one of the Western farmers' major problems, is now being investigated. Officers of the Imperial Institute of Entomology have collected parasites in France and bred them up in England. Last season several large consignments of broken wheat straw, containing sawflies plus parasites, were packed in special boxes and shipped to Canada. These parasites have been released in the wheatfields, and up to date are doing well.

Blanching of a Bay Horse

IN the *Field* for April 16, p. 582, Miss J. McAlpine gives an account of a bay horse the mane of which, black as usual in this colour, turned nearly white owing to a severe fright it received at six years of age when out at grass in a very long field. An aviator, in trying to land here, drove the horse the whole length of the field, and nearly alighted on it. No one saw the horse for three days afterwards, but it was then found to have lost the colour of its mane, as described,

while the tail had also become quite grey. A photograph of the animal, now nine years old, accompanies the note, and shows the pale mane very plainly, so that the effect of the shock seems to have been permanent. The writer of this note once casually saw in a London street a bay pony with a grey mane and also an angular grey patch let in, as it were, on the brown short hair of the neck, but put it down to a freak of variation. The horse is more liable to variation in pelage than any other domestic mammal, and another bay, an aged van-horse, also seen casually in London, was spotted with white over the brown parts as clearly as any deer, but with smaller, more angular spots.

Frequency of Insects in the Air

AMONG a recent series of "Why the Weather" articles by C. F. Talman, issued by Science Service, there is one article commenting on some experiments made in France by A. Bonnet to determine what that meteorologist called the 'entomological density' of the air, a few feet above the ground. This quantity, defined as the number of insects in a cubic metre, was obtained by means of a muslin net attached to the front of a motor car. The car was driven for a kilometre in unfrequented regions far from places where insects collect in exceptional numbers, and the insects in a 1000 cubic metre sample of air were collected and counted. The density was found generally to vary from one or two at sunrise to about seventy in the early afternoon, with a subsequent decline to one or two again at sunset. Those species normally found only very early and late tended to appear in the middle of the day when the air was nearly saturated. This is a line of research that might appeal to motoring meteorologists. It would be interesting to trace the effect of the insect density upon visibility, and see to what extent some of our midsummer hazes are due to large values of this quantity.

Orthographical Relief

A NEW method of showing surface relief on a topographical map is described by Prof. T. Kiritô in the *Geographical Journal* for March. The inventor claims this to be a natural, in contrast to a conventional, method, since it is based on the principle of shading, and gives the reader the appearance of the land rather than detached information of heights. The method makes use of what Prof. Kiritô calls the 'inclined contour'. This is defined as the projection upon a datum plane of the outline of the intersection of the ground surface with an inclined plane. By contrast, the ordinary contour, which is distinguished as the horizontal contour, is the projection upon a datum plane of the intersection line of the ground surface with a horizontal plane. The inclination of the inclined plane is assumed to be 45°. The effect of these inclined contours is to give a shaded map of relief features with a southern illumination on the specimen of a Japanese map which is reproduced. The thickness of the inclined contours is constant, and after experiment it was found most useful to have between thirty and seventy lines to the centimetre.