Color Snapshots for Amateur

Photography

The amateur photographer will soon be able to make snapshots in natural colors, in his own film camera, and without the need for exposures much longer than he would give with ordinary films. This is the announcement made in *Nature,* by F. J. Tritton. These color films will be on the market within a month or two, he stated.

A triple film makes the new method possible. It forms what is known as the "tripack." In any process of color photography that reproduces all the colors of nature, it is necessary to make separate records of the reds, the greens and the blues in the original scene. One of the first methods of doing this was to make these photographs separately, first exposing a plate through a blue glass filter, which passed only the blue light, and so gave a record of the blues. Similar pictures, on separate plates, were made with green and red filters. By making transparent prints from these, dyeing each with the proper color, and then combining them, a color picture could be obtained. As the separate color pictures had to be made one after the other, the method could not be used for pictures of moving objects, though it is generally used today for making color reproductions in magazines.

With a tripack, three films are used at once. They are really arranged as a sandwich, two films with another between. The front one, in the new method, is sensitive to the blue light; the green and red pass through; the middle one is sensitive to the green, and the red passes through to the back one. Though tripacks have been used before, previously it was necessary to put the red in front and the blue in back. As the blue image is the one chiefly responsible for determining the outlines of the subject, and as the back picture is not as clear as the front one, there was more or less fuzziness of the finished picture. By putting the blue in front, a much sharper picture is obtained.

Mr. Tritton stated that this film could be made with very fast emulsions, so that these color films might be as fast as the average roll film. This would permit color snapshots in ordinary light, and with ordinary cameras, a thing not possible with other methods. As the finishing and printing of the pictures is rather complicated, it is probable that the manufacturers will provide this service.

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50,000,000 Indians in 1200 A. D.

Ethnology

The peak of America's native population, before the white man's coming, was reached about 1200 A. D., when there may have been as many as 50,000,000 or even 75,000,000 Indians in the new world. This is the conclusion of Dr. H. J. Spinden, of Harvard University, reported in the *Geographical Review.*

Dr. Spinden's estimates of the people in prehistoric America take into account the Maya, Aztecs, Incas, Mound Builders, Pueblos, and other races scattered over the western world. At present, the Indian population of North and South America amounts to 26,000,000. About 350,000 of these are in North America north of Mexico.

Epidemic disease brought by the white man has been the chief factor in cutting down the Indians.

"Europeans unloaded upon American Indians a tremendous burden of new infections for which the latter had not the slightest immunity," he states. "Perhaps smallpox comes first as an introduced plague and measles second, this latter malady being deadly for the red man. But in the tropics the debilitation and mortality resulting from the introduction of malaria in three types and hookworm in two are heavy factors. There have been great epidemics of several other diseases, including Asiatic cholera. In recent years trachoma has been a burden among many tribes. High mortality among the aborigines has generally followed the opening up of new territories by the white man."

There were few serious disease forms in America when the Indians lived here undisturbed. Dr. Spinden explains this as partly due to the thin scattering stream of immigration from Siberia into Alaska, as contrasted with the thicker settlements of the Old World, and partly due to the fact that the early Americans brought very few animals to become new sources of infection.

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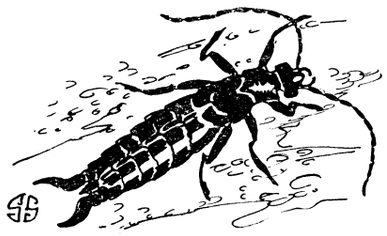
Nature Ramblings

By Frank Thone

Natural History



Earwig

One of the most curiously misnamed insects in existence is the earwig. Few of us ever get to see earwigs, but that is only because we do not hunt for these curious creatures. Even now, late autumn though it is, we can find them by turning up old boards or stones, pulling cattails to pieces, and by prying into cracks and crannies generally.

The earwig gets its name because of a superstition. It was formerly believed that the insect liked to get into people's ears and thence to bore into their heads—the formidable-appearing pincers carried astern probably lending support to the notion. It is believed that the "wig" part of the name is derived from the same source as our word "wiggle." The belief in the earwig's pernicious activities is not confined to English folklore; its German name translates into "ear-worm," and its French name into "ear-piercer." An early 17th-century book gave a simple though somewhat messy remedy for earwig trouble: "If an earwig be gotten into the eare . . . spit into the same, and it will come forth anon."

The earwig's pincers are not made for any such murderous purpose as our grandsires supposed. They are used by many of the earwig species for unfolding their wings. When the earwig wants to use them he must reach up over his back with his tail-tongs, pull out the tightly packed wings, and straighten them out. Then he is ready to fly.

But the riddle of the earwig's pincers is increased by the fact that certain species with well-developed grippers astern do not need them to unfold their wings. There remains the possibility that in these the pincers are used in the mating activities.

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