time intervals and so strictly rhythmical in character.

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ALLEGED REDISCOVERY OF THE PASSENGER PIGEON

IN SCIENCE for November 1 is a communication under the caption "Alleged rediscovery of the passenger pigeon," in which the statement is maintained that a flock of this supposedly extinct bird was recently seen in New York state. Among other observations offered in support of the identification, mention is made of "the whistling sound of their wings." During the seventies and early eighties it was my privilege to form an intimate acquaintance with the passenger pigeon, seeing many thousands of them, shooting hundreds of them and finding numerous scattered nests in the vicinity of Minneapolis, Minn. The wings of this bird never "whistled," the sound made in taking flight being a flapping or fluttering noise similar to that made by the tame pigeon. A flock in rapid flight made a rustling or swishing sound as it passed through the air. On the other hand it is a well-known fact that the wings of the mourning dove produce a loud characteristic "whistling sound" as it launches itself into the air and until it gets well under way. Among pigeon hunters in the old days, this was a commonly recognized distinguishing feature between the two species when other means were obscured.

In and about a "buckwheat field" is an ideal place for an assemblage of mourning doves. Passenger pigeons also fed on grains of various kinds, chiefly wheat and oats, but their favorite food was thin-shelled nuts, largely acorns here in the north.

In view of the fact that no reports of the passenger pigeon from experienced ornithologists have been received for a considerable number of years, in spite of persistent search, it would seem as though this bird must be regarded as an extinct species.

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November 20, 1918

DEMONSTRATIONS OF VISUAL PHENOMENA

PURKINJE EFFECT

IF a color wheel with a reddish and a bluish color be spun in the light of a strong lantern, and then slowly have its plane turned until the incidence of the light is just grazing, the Purkinje effect is at once demonstrated to a class. As the angle of incidence changes from normal to grazing, the intensity of illumination is reduced to zero, and the red becomes invisible. The effect of this is in general to change the apparent color of the disc through a series of very pretty shades.

PERSISTENCE OF VISION

This is easily shown to a class by means of a lantern, with a slide bearing some letters. Instead of imaging the slide on a white surface, the image should be absorbed by black velvet or the image may be formed in an open doorway. Now move a fairly white stick vertically down in the plane of the image. Different portions of the image can then be seen on the stick, and if the stick be moved fast enough, the eye sees the entire image easily.

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USONO

TO THE EDITOR OF SCIENCE: In connection with the discussion in your columns as to a more specific name for our country than "America," it may be interesting to note that the advocates of the international language, Esperanto, solved this problem so far as they were concerned quite a while ago, by the adoption of the name "Usono." This is the substantive form of the expression US o NA., composed of the initial letters of this nation's full designation. Usona is, in Esperanto, the adjectival form.

In a rather hasty and superficial glance through the back files of Esperanto publications, I find the word used, either in the text or in date lines, titles, etc., in various magazines, books and pamphlets issued in England, France, Germany, Poland, Switzerland,

etc., including America, under different dates running back to April, 1908. That it was in good standing then is shown by its inclusion in a dictionary published in that year. An extended search would no doubt develop a prior appearance.

This is adequate proof that the word Usono, as a designation for these United States, has been in active service for more than ten years, so that to-day Esperantists throughout the world are entirely familiar with the term, which is tantamount to saying that it is already used and understood in every country of any importance upon the globe.

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SCIENTIFIC BOOKS

MILITARY GEOLOGY AND METEOROLOGY

The publication of the little book on "Military Geology and Topography" which has just been issued by the Yale University Press, furnishes a useful reader in the subject for classes of the student army training courses and represents still another change due to the war—the introduction of the geologist as an integral part of a military organization.

The text, which has been prepared under the auspices of the Division of Geology and Geography of the National Research Council, is intended to give, as its title page states, a presentation of certain phases of the subjects as they are related to military purposes, and as such will prove useful in the classes for which it was prepared. It is not a text-book of geology in which the subject-matter is developed genetically as is customary in cultural or technical collegiate courses, but is essentially an empirical résumé of certain geological phenomena for prospective army officers. For example, streams are treated from a hydrographic viewpoint apart from their influence in the development of land forms and the discussion of rocks is free from detailed tables of classification and extended descriptions of igneous rocks.

The manuscript represents the cooperative work of a number of different men, authorities in their respective subjects, under the editorial supervision of Professor Herbert E. Gregory, who were called upon to prepare their respective contributions with utmost expedition in the midst of other distracting duties. Under such circumstances the product is highly creditable to both authors and editor though it is natural to expect evidence of hurried writing, lack of logical coherence, and overlapping of treatment—faults which have been eliminated with greater or less success by the self-sacrificing work of the editor.

The book includes chapters on Rocks and Other Earth Materials, Rock Weathering, Streams, Lakes and Swamps, Water Supply Land Forms, Map Reading, the Military Use of Minerals. It is well printed, indexed and generously illustrated.

On account of differing methods of treatment incident to the aims and composite authorship, teachers who use the book with S. A. T. C. classes, composed of students of widely different training, may find some difficulty in using it as a text-book for class-room work but students and teachers alike will find it very helpful in conjunction with lectures and laboratory exercises and as a compendium of illustrations of how geological and topographic knowledge is serviceable in military activities.

An "Introductory Meteorology" planned with special reference to the needs of the Students' Army Training Units has just been issued under the auspices of the Division of Geology and Geography of the National Research Council. The manuscript was prepared by the staff of the U. S. Weather Bureau and the result is a compact and well-illustrated book of 150 pages. It is extremely elementary in character but appears to lay a satisfactory groundwork for the more advanced work at military camps or elsewhere to which it is designed to lead.

Seven pages are devoted to the sources from which data are to be obtained and the composition of the atmosphere. This is followed by twenty-one pages devoted to the instruments