row, only slightly tapering toward their bases (*confirmatus*, etc.).

Ochlerotatus Arrib.

FF. Outstanding scales chiefly very broad, strongly tapering toward their bases, several of them emarginate at their apices (type, *squamiger*). *Lepidoplatys* n. gen.

EE. Scales of the mesonotum chiefly rather broad, obovate, outstanding scales of the wing veins narrow (type, *cyanescens*).

Lepidosia n. gen.

For want of knowledge of the egg-laying habits, the genus *Culicella* is omitted from the above table; also the genera *Melanoconion* and *Pneumaculex*, both of which have rather broad scales on the wing veins. The synonymy of the other proposed names, so far as these can be made out at the present writing, is as follows:

Culex Linné: *Heteronycha* Arrib., *Neoculex* Dyar.

Grabhamia Theob.: *Feltidia* Dyar.

Ochlerotatus Arrib.: *Culicelsa, Culicada, Ecculex* and *Protoculex* Felt; *Pseudoculex* Dyar and *Grabhamia* Dyar (not of Theobald).

D. W. Coquillett.
U. S. National Museum,
January 19, 1906.

IMPORTATIONS OF THE PRICKLY PEAR FROM MEXICO.

The United States Department of Agriculture, through the Office of Grass and Forage Plant Investigations, has within the past three months made some large importations of species of economic cacti from the plateau region of Mexico. There is probably no region in the world where these plants are of so much importance as food for man and beast as they are in the great highland region of this republic. While some of the recent accounts of these plants which have appeared in the popular journals are spectacular and much overdrawn, there is still a great deal of well-founded popular and scientific interest in the prickly pears in this country. The importance of the prickly pear in the region above mentioned is apparent to all who have traveled in Mexico and observed Mexican habits and customs at all closely during any season of the year, for there is scarcely a day throughout the year that the fruits, to say nothing of portions of the plants themselves, are not offered for sale on some of the markets in the cities of the republic.

The following brief list of imported varieties will serve as an illustration of the wealth and variety of material which the Mexican people have at their command: Nopal aguamielillo, nopal amarillo, nopal amarillo-blanco, nopal amarillo-liso, nopal arton, nopal blanco, nopal blanco-liso, nopal charol, nopal caidillo, nopal camueso, nopal cardon, nopal cardon-blanco, nopal castillo-blanco, nopal cascaron, nopal cenizo, nopal chamacuero, nopal chaveño, nopal cochinero, nopal cogonoxtle (cardencha), nopal colorado, nopal cristalino, nopal cuijo, nopal duraznillo, nopal duraznillo blanco, nopal duraznillo colorado, nopal fafayuco, nopal huevo de perro, nopal encarnadillo, nopal jarillo, nopal jocoquilla, nopal joconoxtle, nopal joconoxtle-chato, nopal joconoxtle-cuaresmaro, nopal leonero, nopal liso, nopal loco, nopal mameyo, nopal mansomorado, nopal naranjado, nopal negrito, nopal opalillo (apalillo), nopal pachon, nopal palamito, nopal paloalteño, nopal San Juanero, nopal sarco, nopal tapon, nopal tapon liso, nopal teca, nopal temperanillo, nopal vinatero, nopalito de jardin. About as many more unnamed economic forms in addition to the above have been imported.

Some of the above popular names refer to the same plant, being different appellations for the same thing from different localities, and others are varietal names only, but it is believed that the majority of them represent good botanical species.

David Griffiths.
U. S. Department of Agriculture.

CURRENT NOTES ON METEOROLOGY.

MOISTURE FOR HEATED HOUSES IN WINTER.

The dryness of the air in our furnace or steam-heated buildings in winter has often been referred to, and has also been experimentally investigated. Recently Mr. G. A. Loveland, section director of the Nebraska Climate and Crop Service, has made some cal-

culation regarding the amount of water needed to moisten the air indoors to a reasonable degree (*Mo. Weather Rev.*, XXXIII., 208). He finds that in southeastern Nebraska, in a house containing 14,000 cubic feet, from twenty to forty quarts of water should be evaporated daily. This amount of evaporation does not increase the relative humidity by more than ten per cent. Experience has shown that, under the conditions of Mr. Loveland's experiments, the humidity indoors should not exceed forty per cent., otherwise condensation on windows will be troublesome. Double windows doubtless allow a greater increase in humidity without the disagreeable result here referred to. The ten per cent. increase makes a decided difference in the feeling of the air. The temperature of the room was kept about as high with the added moisture as if the air had been drier. (In some experiments made a few years ago by Dr. Henry J. Barnes, of Boston, the moisture added to the air by means of a 'humidifier' made the room comfortable at a temperature several degrees lower.)

ROYAL METEOROLOGICAL SOCIETY.

RECENT meetings of the Royal Meteorological Society, as reported in the *Quarterly Journal* of the society, brought out several papers of general interest. An address on 'The Growth of Instrumental Meteorology,' by Richard Bentley, laid emphasis on the seven great weapons of the meteorologist, the thermometer, hygrometer, rain gauge, barometer, anemometer, kite and heliograph, and directed attention to our indebtedness to Italy in this science, as in others. W. H. Dines, in 'An Account of the Observations at Crinan in 1904, and Description of a new Meteorograph for use with Kites,' reported upon the kite work carried on under the direction of a joint committee of the Royal Meteorological Society and of the British Association. During the summer of 1904 a naval vessel was placed at the disposal of this committee by the Admiralty. Richard Strachan, in a paper on 'Measurement of Evaporation,' thought it desirable to estimate, even empirically, the probable amounts of evaporation and percolation. 'Normal Electrical Phenomena of the Atmosphere' were discussed by George C. Simpson, who stated the chief lines along which investigations have been made during the last few years, the conclusions arrived at, and the chief problems awaiting solution. A paper by S. P. Fergusson, of Blue Hill Observatory, described the automatic pole star recorder, and the ombroscope in use at Blue Hill. The latter instrument records with great exactness the time of commencement and the duration of rain.

ANNUAL RINGS OF TREE GROWTH.

IN the *Monthly Weather Review*, Vol. XXXIII., 1905, 250–251, Professor E. E. Bogue, of the Agricultural College at Lansing, Mich., gives the results of an investigation made by him of the seasonal and annual rapidity of growth of trees in Stillwater, Okla., between October, 1898, and September, 1901. Twenty-seven trees were studied, nearly all of them being yearlings or two-year-olds. The results show that there was a close relation between rainfall and tree growth. At Lansing, Mich., an investigation was made into the average width of the annual rings of growth of forty-two trees, during the period 1892 to 1904, in relation to the annual precipitation. The data show that a precipitation of 30 to 35 inches gives a width of ring of from 0.11 to 0.15 inch, and that abnormally large or small precipitation is evidenced by the tree growth of the following year.

CLOUD STUDIES IN THE PYRENEES.

THE results of detailed cloud studies carried on at the Pic du Midi Observatory and at the base station, Bagnères, have been discussed by Marchand (*Met. Zeitschr.*, Nov., 1905). Of general interest may be noted the following conclusions. Three different elements occur in clouds: (1) Water drops; (2) small, more or less crystalline ice particles, without definite forms; (3) small, regular, transparent hexagonal crystals (plates, stars, needles, etc.). Cirrus and cirro-stratus are composed of the third of these elements. Cirro-cumulus clouds also contain these crystals, but probably are chiefly made up of ice particles of distinct

crystalline form and much less frequently of sub-cooled water drops. Cumulus, nimbus, stratus, alto-cumulus and strato-cumulus are composed of water drops, which may be sub-cooled, or of ice pellets, sometimes mixed with small regular crystals.

INVESTIGATION OF THE UPPER AIR IN ENGLAND.

Nature (December 14, 1905) reports that the Meteorological Committee has assigned from the parliamentary grant under its control a sum for promoting the investigation of the upper air by kites and other means. It is proposed to establish an experimental station for kite ascents and other experimental investigations; to develop and extend the instrumental equipment, so that facilities may be afforded for the cooperation of other observers upon sea and land, and to provide for the publication of the observations. Mr. W. H. Dines will undertake the direction of the operations for the Meteorological Office. The cooperation of marine observers will be enlisted, and several offers of assistance in the work at land stations have already been received.

TEMPERATURE AND RELATIVE HUMIDITY DATA.

Bulletin O of the United States Weather Bureau contains a useful collection of data concerning the temperature and relative humidity of the United States. The tables include the following: highest and lowest temperatures recorded at Weather Bureau stations for each month (with charts); monthly and annual mean maximum and mean minimum temperatures; monthly and annual mean relative humidity. If we are not mistaken, these data have all been published in the 'Annual Reports of the Chief of the Weather Bureau,' but it is very convenient to have them in a separate *Bulletin,* of less bulky proportions than the annual reports.

R. DeC. Ward.

THE CONGRESS OF THE UNITED STATES.

January 15.—The Secretary of the Treasury transmitted a communication from the Secretary of the Interior, submitting an estimate of appropriations for the International Seismological Association. Referred to the Committee on Appropriations of the House of Representatives.

January 26.—Mr. Lacey introduced a bill in the House to protect birds and their eggs in game and bird preserves. Referred to the Committee on Public Lands.

Mr. Babcock introduced a bill to prohibit the killing of birds and other wild animals in the District of Columbia. Referred to the Committee on the District of Columbia.

January 30.—Mr. Cushman introduced a bill for the protection and regulation of the fisheries of Alaska. Referred to the Committee on the Territories.

February 1.—A bill to establish a fish-cultural station in the state of Utah was considered as in committee of the whole. It proposes to appropriate $25,000 for the establishment of a fish-cultural station in the state of Utah, including purchase of site, construction of buildings and ponds, and equipment, at some suitable point to be selected by the Secretary of Commerce and Labor. The bill was passed in the Senate.

A bill to appropriate the sum of $25,000 under similar conditions to those of the first bill, to establish a fish-cultural station in the state of Wyoming, was also passed.

A bill to establish one or more fish-cultural stations on Puget Sound, state of Washington, was considered as in committee of the whole. It proposes to appropriate $50,000 for the establishment of one or more fish-cultural stations on Puget Sound, state of Washington, for the propagation of salmon and other food fishes, including purchase of sites, construction of buildings and ponds, purchase and hire of boats and equipment and such temporary help as may be required for the construction and operation of the fish-cultural stations, at a suitable point or points to be selected by the Secretary of Commerce and Labor, the number of fish-cultural stations to be determined by the Secretary of Commerce and Labor. Passed in the Senate.

February 8.—The bill to establish a fish-cultural station in the city of Fargo, North Dakota, passed the Senate.