the tropics, has advanced the opinion, which will seem highly revolutionary to most persons, that the low death rates in the cities on our northern Pacific coast result from the cloudiness of those places. Dr. Woodruff holds that races are colored in a way to resist the effects of too much sunlight, and that the white race is fitted, not for the most sunny latitudes, but for the least sunny ones. Further, he believes that the blonds are gradually eliminated through greater susceptibility to disease in the lighter parts of a country, while the brunettes survive, being stronger and less injuriously affected.

NOTES.

Those who are interested in the very ingenious cipher code used by our Weather Bureau in the transmission of its observations will find an account of 'Weather Bureau Cipher Codes,' by Professor E. B. Garriott, in the *Monthly Weather Review* for October, 1905.

Professor W. H. Pickering has recently published a paper on 'Martian Meteorology' in the *Annals* of the Harvard College Observatory, Vol. LIII., No. VIII. In the *Monthly Weather Review* for October, 1905, Professor Cleveland Abbe gives a brief summary of the investigations on this subject.

It has been noted that when hailstones are melting away in a pail of water they end their career by giving up a large bubble of air which had evidently been enclosed, under great pressure, in the white snow at the center of the hailstones. Observations of this fact, and also of the size of the cavity that appears to contain the air and of the size of the bubble as it ascends through the water, are desired by the editor of the *Monthly Weather Review*, Washington, D. C.

Das Wetter for December, 1905, contains the results of an investigation of the value of radiation from the sky, carried out by W. Gallenkamp by means of an apparatus designed by himself for this work. This subject has received but little attention as yet.

R. DeC. Ward.

ENTOMOLOGICAL NOTES.

Enderlein has found a curious wingless fly in Germany, which has much resemblance both in shape and movements to a Thrips.[1] He refers it to the Bibionidæ. It has halters, and rather large long legs; only one female specimen is known, and doubtless the male will be winged.

Mr. S. Graenicher has investigated the larval habits of several parasitic bees and obtained some highly interesting results.[2] In the three cases of *Stelis* with *Alcidamea*, *Cœlioxys* with *Megachile*, and *Epeolus* with *Melissodes* he finds that the parasitic larva is provided with sharp mandibles and an aggressive temperament, so that it attacks any larva it meets in the nest, even of its own kind. In some cases the larva loses its sharp jaws at a later moult, and thereafter feeds on the honey and pollen stored by the host-bee. The larva of the host-bee has blunt jaws, and though often larger than its enemy, never attacks it.

Mr. Carl Hartman is the author of an interesting paper on the habits of some Texan solitary wasps.[3] He has watched, more or less thoroughly, the habits of twenty-eight species, belonging to various families. Several species are shown to vary in the method of making and closing the nest, and in stinging and carrying their prey. Some species are extremely fastidious in choice of prey, but *Microbembex* will take any insect, dead or alive, to provision her nest. He considers that the primary purpose of the sting is to paralyze the prey, but in some cases it also kills them. In finding their nests he believes that these wasps are guided by sight, and a memory of landmarks; and he adduces some evidence to show that variation in habits is proportionate to the physical

[1] 'Thripsomorpha paludicola, n. gen. n. sp., eine neue deutsche flügellose Flüge,' *Zool. Jahrbücher*, Abt. Syst., XXI., pp. 447–450, 1 pl., 4 figs., 1905.

[2] 'Some Observations on the Life History and Habits of Parasitic Bees,' *Bull. Wisc. Nat. Hist. Soc.*, III., pp. 153–167, 1 pl., 1905.

[3] 'Observations on the Habits of Some Solitary Wasps of Texas,' *Bull. Univ. Texas*, No. 65, pp. 72, 4 pls., 1905.

variability of the species. Like all who have studied these creatures, he finds that *Ammophila* is the most remarkable, the most intelligent and interesting; and the most attractive of his twenty-four photographs refer to this wonderful wasp.

THE *Festschrift Möbius*[4] contains four entomological articles. The first is by Dr. K. Kraepelin, on 'Die geographische Verbreitung der Scolopendriden,' pp. 167–194. The author tabulates the distribution of each subfamily, from which it is seen that the neotropical region is especially rich in Cryptoptinæ, the oriental region in Otostigminæ, while the African and neotropical regions have equal claims as the home of the true *Scolopendras*. The family, as a whole, is more fully represented in South America than elsewhere, with seventy species, nearly equally divided among the three subfamilies. It may be noted that although the palæarctic region has fewer species than the nearctic, yet it has more endemic species.

The second article is 'Ueber die Entwicklungsstufen der Steinläufer Lithobiidæ, und Beiträge zur Kenntnis der Chilopoden,' pp. 195–298, 3 pls., by Dr. K. W. Verhoeff. He describes the immature stages of several species of *Lithobius*, showing the increase in number of segments, legs, antennal joints and ocelli in each stage. He finds eight stages before maturity, the last four of which he designates as follows: fifth, agenitalis; sixth, immaturus; seventh, præmaturus; eighth, pseudomaturus. The number of legs does not increase beyond the 'agenitalis' stage, while the antennal joints and ocelli increase in number to maturity. The remainder of his article consists of notes on the morphology of various parts of the body, and an account of a case of cannibalism.

Dr. H. J. Kolbe presents the third article, 'Ueber die Lebensweise und die geographische Verbreitung der coprophagen Lamellicornier,' pp. 475–594, 3 maps. The author gives a résumé of the known life history of the various species, and then enters a long discussion of their geographical distribution; tabulating the subfamilies and genera (with number of species) for each region. From these studies he divides the Palæarctic region into four subregions: Europæo-Siberian, Mediterranean, Turkestain and Chino-Japanese. The African region he subdivides into Tropical, South African and Madagascar. The Indian is divided into Upper Indian (including South China and Formosa), Lower Indian (including Ceylon) and Indonian (including the Philippine and Sunda Islands). The Australian region he divides into Melanesian, New Holland (including islands of the South Seas) and New Zealand. The Neotropical fauna is grouped in the Argentino-Patagonian (including Chile), the Brazilian, the Central American and the Antillean subregions. The Nearctic he divides into but two subregions, the cismontane, and the transmontane or Californian. Africa appears to be the most fertile region for these insects.

The last article is by Th. Kuhlgatz, on 'Beitrag zur Kenntnis der Metamorphose geflügelter Heteropteren,' pp. 595–616, 13 figs. He treats of the morphology of the thorax as indicating the age and development of the individual; of the relation of the scutellum to the wings; and, as less important, the shape of the head and abdomen, and the color as indicative of maturity. NATHAN BANKS.

[4] *Zool. Jahrb., Suppl.*, Bd. 8, 1905.

ROBERT OGDEN DOREMUS.

PROBABLY no educator has ever left more pupils to mourn his loss and recall his many estimable qualities as a teacher and lecturer than Dr. Robert Ogden Doremus, who died on March 22, 1906, in the eighty-third year of his age.

Dr. Doremus was born in New York City, on January 11, 1824. He was descended on his father's side from Anneke Jans, who early settled in New York and on his mother's side from Robert Ogden, one of the founders of Princeton University. He was at one time a student in Columbia College, but completed his college education at New York University, receiving the degree of B.A. in 1842, the degree of M.A. in 1845, the degree of M.D. in 1850, and the degree of LL.D. in 1871.

Dr. Doremus early manifested a special in-