and abdomen. Tegmina hyaline with light brown veins, granules very small bearing black hairs, a dark mark at end of commissure, wings hyaline with brown veins.

Opening of pygofer round, margin produced into a small lobe at each side of the anal segment; anal segment small with a pair of small, stout spines on the medio-ventral edge, touching at their bases and slightly diverging to the apices; armature or diaphragm small, Y-shape; genital styles long, flat, slightly curved, slightly narrowed at middle, apex truncate with the corners slightly produced.

Length 1.6 mm.; tegmen 2.0 mm.

Female lighter in colour, especially so on coxæ and abdomen.

Length 2.2 mm.; tegmen 2.8 mm.

Habitat.—Demerara River, British Guiana.

SAMUEL WENDELL WILLISTON.

In the death of Samuel Wendell Williston, on August 30, 1918, American entomology has lost one of its keenest students. Although his professional work lay mainly in palæontology, in which field he attained great distinction, he also ranked as the foremost American dipterist of his time and a world-authority in this branch of entomology.

The following brief sketch of his life is based upon, and largely quoted from, the admirable account by Prof. J. M. Aldrich, which appeared in the November number of the Entomological News (vol. XXIX, pp. 322-327, with portrait).

Samuel Wendell Williston was born on July 10, 1852, and was, therefore, 66 years old when he died. At this time and for some years previously he was Professor of Palæontology and Director of the Walker Museum in the University of Chicago. His boyhood was spent at Manhattan, Kansas, where he entered the Agricultural College, graduating in 1872. He began to study medicine in 1873, but in the following two years he spent the summer months in fossil-collecting expeditions in Western Kansas, the work being done for Prof. Marsh, of Yale University. After a winter at the Medical School of the University of Iowa, he visited Prof. Marsh in the spring of 1876, and this visit resulted in almost continuous employment with Marsh for nine years, until 1885, when he received his Ph. D., specializing in palæontology. He also managed to finish his medical course in 1880, and in 1886 was appointed demonstrator in anatomy at Yale Medical School. So great was his ability as an anatomist that he obtained a full professorship in Human Anatomy in the following year.

After three years in this position he accepted a call to the University of Kansas as Professor of Historical Geology and Palæontology. Twelve years of arduous and productive work followed, during which he helped to organize the Medical Department of the University and took on the deanship of the latter in addition to his other duties.

Though possessed of a vigorous constitution, his health began to give way under the strain of overwork, so that, after resigning from this post, he went to Chicago in 1902 as Professor of Palæontology, in which capacity he was able to concentrate upon his chosen specialty. Here he spent the last 14 years of his

life, beginning under some unexpected hardships and gradually working up to full recognition and honours.

Williston never held an official entomological position, but he found time to do much valuable work as a pioneer in dipterology. His interest in flies began to be serious about 1878, but he was virtually alone in the field in America, and the difficulties which confronted him in the identification of genera and species were almost overwhelming. After a year or two of slow and tedious effort, however, he came upon Schiner's Fauna Austriaca, in which he found great relief and satisfaction, for he was now able, through its excellent analytical tables, to trace all his American flies to their families and, in most cases, to their genera. "He was so impressed by the saving of time accomplished that his own publications coming later show the effect of this early experience on every page; everywhere he has the beginner in mind and is clearing the way for him.

"In a few years he began publishing tenative papers analyzing the American families and genera of flies. These he extended and enlarged in a pamphlet in 1888, and again in a bound volume in 1896; and in 1898 published a third edition still more complete, with 1,000 figures, his well-known Manual of Diptera. This third edition is his main contribution to entomology. It is a handbook unapproached by anything else dealing with a large order of insects. From necessity he published it at his own expense; it was eight years before the receipts from sales covered the cost of printing, but happily he lived to see this consummation.

"His other papers of his early period, 1881-89, dealt with Asilidæ, Conopidæ, Tabanidæ, and smaller groups, and especially with Syrphidæ, in which his fine monograph of 1886 is still in universal use, and by the taxonomic genius of its author has created in the United States an ineradicable belief that the family is an easy one, well adapted for the beginner to publish in; a mistaken belief, but highly complimentary to the monographer.

"From 1890 his more important papers were concerned with tropical Diptera (Mexico, St. Vincent, Brazil), and with bibliography As his official duties grew more exacting, he gradually abandoned entomology, but he had as many farewell appearances as an opera singer, for he could not resist the temptation to come back again and again * * * But after 1896 he did little work on the order except in preparing the third edition of his Manual, which cost him two years of arduous work, as he drew 800 figures with his own hand His deep interest in genera and his very wide acquaintance with them, together with his universally recognized taxonomic ability, made him in the period 1890-1900, the peer of Osten Sacken, Brauer and Mik as a world-authority in Diptera."

Williston exercised a stimulating and inspiring influence upon his students, with whom he associated himself intimately. Although he never gave any formal entomological courses, he gave much informal assistance to many who were interested in his special studies, and among these are some of our most eminent dipterists, as well as others who attained distinction in palæontology. "But his life work was mainly directed to the larger circle outside his own institution."

"His last years were full of honours. He was a delegate to the International Zoological Congress at Monaco; Yale University gave him an honorary D. Sc.;

he was chosen to the limited membership of the National Academy of Sciences, and the Entomological Society of America made him an Honorary Fellow, one of seven out of its membership of 600.

"He was married in 1880 to Annie I. Hathaway, of New Haven, who survives him together with three daughters and a son."

In his concluding paragraph Prof. Aldrich says: "More than any other of my teachers, he became my ideal of a scientific man; and if in later years my ideal took on larger proportions, so he too seemed to expand in his nature powers; and at the close of his life I still feel that a splendid and inspiring example of scientific work and achievement is contained in his career."

SOME NEW LACHNIDS OF THE GENUS LACHNIELLA.

(HOMOPTERA-HEMIPTERA.)

BY H. F. WILSON, MADISON, WIS.

(Continued from page 22.)

Lachniella nigra, n. sp.

Descriptions made from specimens collected at Kilbourn, Wisconsin, August 18, 1917, on Pinus sp. Very abundant and found in colonies on the underside of the branches or on the trunk of young trees. General colour shining or a metallic chocolate brown, not pruinose. Colour notes from live specimens, other notes from alcoholic and balsam material. Types in the writer's collection.

Apterous viviparous female.—General colour metallic brown with the legs and antennæ black. After being in the balsam for a few months the antennæ and front and middle pair of legs became lighter, especially the tibiæ. Antennæ with the third segment being much stouter. Third segment approximately as long as the fourth, fifth and sixth together, the sixth being slightly longer than the fourth, and both less than the fifth. Third segment without sensoria, fourth with two small ones, and the fifth with one small sensoria near the middle, and a very large one at the distal end. Beak long, extending to the tip of the body. Nectaries very large and with a straight sloping base, cauda angled rather than rounded at the tip. Hairs abundant and of medium length.

Measurements.—Length of body 2.5 mm. Length of antennal segments: III, 0.5 mm.; IV, 0.187 mm.; V, 0.27 mm.; VI, 0.21 mm. Total length 1.34 mm. Length of beak 2 mm. Length of hind tibiæ 2.35 mm.

Alate viviparous female.—General colour bronze brown with antennæ and legs black. Colour notes made from live specimens, other notes from balsam mounts. After several months in balsam the antennæ and legs become lighter coloured. The antennæ from the base of the third segment, gradually becoming darker toward the tip, the last segment being dusky to black. The tibiæ of the first and second pair of legs excepting at the joints become quite clear, those of the hind pair continue to be dusky black. Third antennal segment approximately as long as the fourth, fifth and sixth. As in the apterous forms the antennæ taper somewhat, the last two segments being thicker than the preceding; from one to three sensoria are found on the distal end, except that occasionally two sensoria may occur near the end, and one larger one about the centre of the segment. Fourth segment normally with one sensorium, but two may occur.