

surely have bitten him, but the chief Wolf said, "Hold! We will let him go this time, for he is young and not yet of good sense." So they let him go.

When night had come, they heard one who shouted for a feast, saying "Wo-kā-hi-i! Wō-kā-hi-i! Māh-kwē-ī Kē-tūm-ok-ih-wah-hi Kē-tūk-kā-pūk-sf-pīm." (Listen! Listen! Wolf you are to feast, enter with your friend). "We are asked," said the chief Wolf to his new friend, and they went to the lodge where the feast was given. It belonged to the chief of the Ravens. [Here the narrator is a little obscure, but from questioning him and others I learn that these ravens, wolves, foxes and others were supposed to take the shape of men at will.]

Within the fire burned brightly, and in the seats of honor sat the aged and wise of the Raven gens. Hanging behind the seats were the writing of many deeds, [meaning the painting on cowskin of the various battles and adventures in which the owner of the lodge had participated]. Then was food placed before them, pemmican of berries, and the thick white fat. And when they had eaten, the pipe was smoked around the circle. Then spoke the Raven chief: "Now Wolf, I am going to give our new friend a present. What say you?" "Tis as you say," replied the Wolf. "Our new friend will be glad."

Then the Raven chief took from a long parfleche sack a wand beautifully dressed with many colored feathers, and on the far end of it was fastened the skin of a raven-head, wings, feet and all. "We," he said, "are the Raven-packers [those who carry the Raven]. Of all the above animals, of all the flyers, where one so smart? None! Sharp the Raven's eyes, strong his wings. Hungry he is never. A great hunter he, far, far off on the prairie he sees his food, and deep hidden in the pines it escapes not his eye. Now the song. [Here the Raven carriers' song is given.] Then he handed him the medicine [the decorated wand] and said, "Take it with you, and when you have returned to the lodge of your people you will say: 'Now there is the Bull's, and he who is the Raven chief thus says: 'There shall be more; there shall be the E-kūn-ūh'-kāh-tse, that the people may survive, and of them shall be the Raven carriers.' In-the-middle-talk house you shall call the chiefs and the old wise men, and they shall select the persons and teach them the song, and the medicine shall be theirs forever. Now again the song. [Here the song is repeated]."

Then soon again they heard him who shouted for the feast, and going, they entered the lodge of the Sīn-o-pāh chief. Here, too, were the old men assembled. Now, after they had eaten of that set before them, the chief said, "Those among whom you are new arrived are generous. They look not at their possessions, but give to the stranger, and they take pity on the poor. A little animal the Kit-fox. What smarter than he? None! His hair is like the dead prairie grass. Sharp his eyes, noiseless his feet, cunning his brain; his ears receive the far-off sound. Here now our medicine. Take it." And he gave the wand. It was a long stick, crooked at one end. It was wound the entire length with fox skins and decorated at intervals with eagle tail feathers. Now again he said, "Hear the song. Hear and forget not. And the dance, too, you shall remember, and you shall teach it to the people; and the E-kūn-ūh'-kāh-tse shall have the Kit-foxes too."

Again they heard the feast shout, and he who called was the Bear chief. Now when they had eaten, the chief said, "What say you, friend Wolf? Shall we give our new friend something?"

"As you say," replied the Wolf. "It is yours to give." Then said the chief Bear, "There are many animals; those who fly, and those who walk, and those who live under the water. They are of no force. The bear is the strongest one. Strong his teeth, long and sharp his claws, and his heart is brave. He fears nothing. That which he seizes he lets not go." Then he put on a necklace of bear claws, a belt of bear fur, and around his head a band of bear fur. "This," he said, "is the medicine. Now the song and the dance." When he had finished he gave the medicine to the new come one, and said, "Lose them not, nor forget the song and dance, for the Bears too shall be of the E-kūn-ūh'-kāh-tse."

It was now far into the night, yet again, from the far end of the camp they heard the feast shout. In this lodge the men were painted with streaks of red, and their scalp locks were long and carefully braided. After the feast the chief said, "We are no animal gens. We are the Mā-si" [this word means as nearly as it can be expressed in English, rashly brave]. "We are death. If our enemies are like the grass [in number] we turn not away. Bows are good, spears better, but our weapon is the knife." Then the chief sang and danced and when he was through he gave the Wolf's friend the medicine. It was a long stone knife and scalp were tied on the handle. "For the E-kūn-ūh'-kāh-tse," he said, "is this."

Once more they were called to the feast and entered the lodge of the chief of Badgers. He, also, taught the Badger song and dance, and gave the medicine. It was a rattle, ornamented with beaver claws and bright feathers; and after they had smoked two pipes the Wolf and his new friend went to their lodges and slept.

Not yet had risen the sun, but the food was cooked; and when light they took down their lodge and prepared to return to the people. Then came many women and they brought meat and pemmican, and berries dried, for presents, and they were given so much that they could not pack it all away. The people, too, had moved away in search of buffalo, and many days were passed before they met. Then he who had been to the animals' homes told what he had seen; and, as they said, he taught those who were chosen the songs and dances. This was the beginning of the E-kūn-ūh'-kāh-tse. It was long ago.

The main object of this society, so far as I can learn, was to protect the village or camps from enemies and from internal strifes and quarrels. Without permission, no lodge of people could leave the main camp. If they did members of this society quickly overtook them, and not only destroyed the lodge, but also all the personal property of the owners. A like punishment was inflicted on those who stole out to hunt by themselves, thereby scaring the game away. Certain days were set for hunting, so all would have an opportunity to secure food. Another and by far the most important duty of this society was to protect the camp from surprise by enemies. Whether traveling or not, scouts were always out in all directions watching for war parties, and so ceaseless was their vigilance that, so far as tradition goes, it is said that a Black-

foot camp was never surprised. Of the fighting qualities of these people more will be said in another chapter.

At intervals the different bands of this society held a dance, when they appeared in full costume. At the medicine lodge they all took part. J. W. SCRUTTON.

### Natural History.

#### THE WHIP-TAILED SCORPION.

DOWN along the Rio Grande, there is a great deal to interest the lover of nature, the naturalist, even if the true sportsman does not find the country a paradise in his own eyes. Through the region where this grand old stream finds its way in Texas, occurs an interesting representative of the armadillos (*Tatusia novem-cinctus*), numerous forms of indigenous squirrels, and others of the Rodentia, rare types of bats, and several of the rarer Mustelidae, all among the mammals; while as we know it is the land of the coppery-tailed trogon (*T. ambiguus*), the lovely Texan kingfisher, the curious parakeet (*N. albicollis*), some of the most beautiful of the humming-birds, and the famous chachalaca (*Ortalis vetula macalli*), among the birds. And when we come to the reptiles, fish, and insects, there is no end to the novelties and intensely interesting forms for study.

Among the last-named occurs the much-dreaded whip-tailed scorpion, as the writer pleases to call it, the "vinegaroon," as most of the people thereabouts designate the insect, which is the *Thelyphonus giganteus* of science. A few days ago I received a very fine adult specimen of this creature, from Steward Henry Bunker of the Hospital Corps of the Army, who collected it at his station, Fort Seldon, New Mexico, and forwarded it to me.

Upon receiving it, I immediately made a life-size drawing of the insect, the figure which illustrates the present article. Many reports have come to me about this scorp-



Upper view of a specimen of the Whip-tailed Scorpion (The "Vinegaroon") *Thelyphonus giganteus*; life size, from nature, by the author.

pion, and those who have seen it in its native haunts are curious to know how it is regarded and classified by naturalists. Personally, I have never known of a case that proved fatal from its bite, though Professor Packard, the eminent entomologist, tells us that its bite is poisonous, yet seldom causes the death of the person who sustains it.

Scorpions, it will be remembered, are somewhat closely allied to the true spiders (*Arachnida*) and are characterized in possessing a liver, which organ is absent in the winged insects. They are likewise without antennae, and have but one pair of jaws, and four pairs of legs. Usually the abdomen is of considerable size, while the head and thorax are more intimately united together than we find these two divisions in the bodies of most other insects to be.

We are all more or less familiar with the form of the true scorpion, with its pair of claws something like those of a crab, its segmented body, its elongated tail-like appendage which is also segmented, and is terminated by its sting, though the poison gland which supplies the latter is located at the base of the tail, the venom when called into use passing through a pair of ducts to it. Other investigators tell us, however, that the poison is contained in the bulbous enlargement at its extremity. At the present writing, it has never been my fortune to have carefully dissected one of these interesting insects, so I cannot personally decide this matter for you here.

Young scorpions are brought forth alive, and are known to travel about riding on the back of their mother. They possess, in common with their parents, the power of running backwards and sideways, as we have seen some species of crabs do.

Now our whip-tailed scorpion is structurally nearer the spiders than are the true scorpions, and the lash which gives it its name is but a feeble, segmented appendage to the abdomen, which does not harbor the sting at its extremity. It also has, as will be seen by the figure, four

pairs of legs, but the anterior pair are considerably modified, being far longer and more slender than the others.

They each consist of four principal joints, and then distally are terminated by another section which is made up of eight more diminutive joints. The other legs also possess four principal joints but terminate by sort of a hand which has three minor segments and is furnished off by a delicate claw. Anteriorly, the clawed-arms remind us very much, being exceedingly hard and firm, of the limbs of certain of the smaller species of crabs. Head and thorax have really coalesced in this insect, and no doubt exists as to the segmentation of its large abdomen, there being nine divisions in it, while a small protruding part behind, also segmented, supports from its extremity the lash.

This is one of the largest representatives of our insect fauna in the United States, and I trust the brief account of it which is presented here will prove of interest to those who desire to be informed in regard to the curious animals they may chance to meet with in their rambles, and who can admire nature all the more for being in possession of such information. R. W. SHUFELDT.

FORT WINGATE, N. M., June 26.

#### AMERICAN FORESTRY CONGRESS.

THE sixth annual meeting of the American Forestry Congress will be held in Springfield, Ill., Sept. 14 to 16, in response to an invitation tendered by the Legislature of that State. A similar resolution was passed also by the Legislature of the State of Nebraska, but inasmuch as the last meeting of the Congress was held in that State, the executive committee has preferred to locate this year's meeting more centrally, and to accept the cordial invitation of the State of Illinois.

A full attendance of members is urged to justify, and appropriately respond to the courtesy of the State of Illinois. Papers upon topics of interest are solicited from members and friends.

Those expecting to participate in the sessions are requested to announce their names to the secretary before Sept. 1, and to transmit the titles of papers they wish to read.

Among others, the following topics are suggested as especially fitted for discussion at this meeting: a. Necessity of a change of policy on the part of the General Government in regard to its timber domain. b. Effects and results of forest legislation in the different States. c. Suggestions in regard to desirable forest legislation. d. Status of artificial forest planting in the Prairie States and suggestions in regard to the same. e. Methods of enlarging the effectiveness of the work of the Forestry Congress.

It is a gratifying sign of progress, that the Legislatures of two great States have recognized the value and given expression to their appreciation of the work of the Forestry Congress, by desiring it to hold its next meeting in their capitals.

Such recognition may inspire to renewed effort those who are laboring unselfishly in this work of reform, and fill them with the hope that at last their object will be attained; that progress, though slow, is assured.

It may be fitting on this occasion once more to state the reason of the existence and the object of the Forestry Congress, for in spite of the active propaganda which it has maintained or instigated in papers and periodicals, and by the publication of discussions and proceedings, the full scope of the work in hand seems not yet generally understood.

Although there are still large districts of our country densely wooded; although most of our forest areas possess such vigorous power of recuperation as to lend countenance to the belief that nature's efforts are sufficient to repair the wounds made to man upon the forest growth; although substitutes for wood are possible in many cases and are already employed in some; yet we claim: That the present reported forest area of the country (less than 500,000,000 acres) cannot, in its present condition, and under present methods of utilization, furnish a continuous supply of wood of all kinds even to our present population of 80,000,000, the annual consumption being over 20 billion cubic feet; that the supply of building material, if slaughtered in the same manner as heretofore, without regard to recuperation, will be practically exhausted before any new crop now started can be ready for use; that our supplies will be inferior in quality and inferior in amount per acre, if left to nature's methods of re-forestation after the forcible interference by man, while an increased population will make larger demands on these resources; that in spite of the employment of substitutes, the consumption of wood is increasing with the increase of population all over the world. (In Germany the consumption of coal has increased 235 per cent. within 24 years, and yet the wood production has increased in a similar ratio).

We claim, that considered merely as regards material supply, the question of forest preservation has reached a stage where the earnest attention of the economist is called for.

We claim, that the equilibrium of the forces regulating water supply and soil conditions is beginning to be disturbed, to the detriment of agriculture, by a needlessly wasteful and imprudent management of our forest areas.

We claim that every patriotic citizen, every thinking man or woman is concerned in the maintenance of a properly managed forest cover, sufficient both for material supplies and for the comforts of civilized life.

Our objects, then, are to eradicate the existing feeling of unconcern in regard to one of the most important factors of economic progress; to demonstrate the direct and indirect value of our forest cover in relation to the agricultural conditions and the civilization of our country; to convince our people that forestry is as much needed by a civilized and rapidly developing nation as agriculture; to show that immediate activity is called for in view of the present status of our forests and still more in view of the indifferent manner with which they have been and still are regarded and used; to prove that economy in the use of wood, careful protection and careful working of the natural forests, planting of new forests on waste places and in the prairie regions, have become a national necessity.

This is not a question that concerns only to-day or to-morrow; the consequences of to-day's action or inaction are visible only after the lapse of many years; they are not equally foreseen nor their time and extent foretold. The tool and squanderer marches along heedless of the coming disaster, until the wise man acts in time to prevent it. We appeal, therefore, to every good citizen to give thought to these warnings and to aid us in the endeavor to impress upon our people the need of caution, economy and a conservative management of our forest resources, the need of a timely beginning for future emergencies, the need of systematic planting for immediate effects in the prairie and wooded plains, the need of forest preservation on our hills and mountains.

Our work is the work of advocating and establishing principles. We meet once a year and by our discussions incite or enlarge local interest in the question of forestry; we encourage and assist in the formation of local forestry associations which will translate our teachings into practical results; we try to create a sentiment favorable to our objects by publishing our proceedings and appeals; we try to induce and support legislation looking toward forest preservation and the encouragement of forest planting, and incidentally we endeavor to give information for practical application. We are few in number, poor in funds, without a personal object, without paid officers, but we work faithfully, with the conviction that we advance the interests of our country. As there is no person of any prominence in becoming a member in this congress we must rely for support upon the best impulses of an elevated citizenship, which prompts self-imposed duties and taxes for the advancement and welfare of the country.

We appeal to those who can raise themselves above the level of selfish motives in solving this national problem, to aid our work by joining us, lending their moral support and financial aid to a worthy cause.

Applications for membership are received by the undersigned or any of the officers. B. E. FARNOW, Secretary. WASHINGTON, D. C., June, 1887.

RECENT ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN. Prairie-Lion. American badgers (*Taxidea americana*), one green monkey (*Cercopithecus callicercus*), two Illiger's meacaws (*Ara macanaka*), one purple gallinule (*Porphyrio martinica*), one mealy Amazon (*Chrysotis farnosus*), two blue-bonnet parakeets (*Leucotis nama-logaster*), two white-eared coueas (*Conurus leucotis*), two pine snakes (*Pityophis melanoleucus*) and two horned lizards (*Phrynosoma cornutum*). Presented—two jumping mice (*Uroscopus fulvipes*), one raccoon (*Procyon lotor*), two flying squirrels (*Pteromys voluteata*), one red fox (*Vulpes fulvus*), three screech owls (*Scops asio*), two pigeon hawks (*Accipiter fuscus*), two alligators (*Alligator mississippiensis*), six water snakes (*Tropidonotus fasciatus*) and three box tortoises (*Cistudo climax*). Born—One fallow deer (*Cervus dama*).