

TARANTULA

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Has any one of you ever *seen* a tarantula? Not in pictures—nor in some collection of killed spiders where the essence of life and vigor has been removed. There one sees only the stilled form of what once was a creature of movement and being. This is not what I allude to nor do I think of these bits of spiderdom measuring two or three inches in diameter. I am referring to a real tarantula—one that measures five, six, or more inches in its spread. One can see average specimens here-about, in such places as the Pinnacles or among rocks in the warmer areas nearby—but it takes the deep, dry, rocky washes and canyons of Arizona or Mexico or of Central and South America to produce the specimens of real size.

These beget dread and fear at sight of them. Their size, color (of brown or black), multiplicity of fuzzy and hairy legs; their determined unconcern of movement, as though afraid of nothing yet not to be deterred from their objective, render them personalities to be given a wide berth and ones to be strictly left to themselves. Notwithstanding their slothful movement and their apparent unawareness of what goes on about them, they are astoundingly quick in action, and will disappear from sight in a flash of time.

Two bits of folk-lore have been given them—one, that the bite is fatal—the other that they can jump six feet in their action of attack. The former is true only in the instance of very young children; there are some few cases of record in which severe illness and even death from the bite has occurred. In the second instance, the tarantula is not classed as a jumping spider, but depends solely upon the quickness of his locomotion to arrive at an objective.

Notwithstanding the impression that the bite can definitely be fatal, a debunking of the idea has been brought forward by many naturalists until the concensus is that, after all, the average person would need have but little concern were he to sustain

a tarantula bite. Many investigators have deliberately provoked a bite, and the general report is that the sensation is locally quite similar to the jab of an ordinary needle. While in some instances a more or less degree of cellular swelling does occur, the greater proportion would exhibit an inconsequential reaction. Further than that, several naturalists have gone so far as to cultivate specimens as household pets, one man having as many as a dozen or more moving freely about his house. In one instance the statement was made that he had trained them to respond to his whistled call. Pursuit of this particular hobby would, of course, be entirely up to the individual.

We are primarily concerned with two of the tarantula species, from both the geographical and the medical viewpoints. Essentially, when speaking of *Tarantula* we mean the *Tarantula Hispania*, which is the larger of the species and is found in Southern America and Southern Europe. The *Tarantula Cubensis*, or the spider of Cuba, is the smaller and is the less nocuous. The North American tarantula is usually a one-inch body with three-inch leg spread, brown in color, predominately, and is the far more hairy specimen as to coverage. Larger spiders measuring five to even ten-inch leg spread have body measurements even up to three inches in length, and oftentimes will weigh as much as two or three ounces. They tend more to being black and are far less hairy covered, and again are more venomous than the North American specimen.

Our medical preparations are made from the dry trituration of the entire live spider to the 6X and then may be converted into dilution.

It is definitely known that the tarantula is not aggressive and is actually timorous; does not bite unless cornered or abused. There are two outstanding traits of this particular species—their exquisite response to even the slightest touch, and a similar reaction to sound or vibration. Either modality sends them, in a flash, to their burrows or places them upon the defensive. These are to be particularly borne in mind when we consider *Tarantula* therapeutics.

You have unquestionably heard or read of the old folk tale that persons bitten by this spider were wont to go into a

wild dancing orgy as a result of the venom-intoxication and were only relieved by a continuation of this dancing, to an accompaniment of music. Again, a similar tale was that an immediate coma followed the bite, in which instance the cure was secured by the playing of music, which gradually dissolved the coma and launched the victim into a wild, gesticulating type of dance. Both fables, however, have long since dropped from consideration or belief, and it is not noted that the tarantula itself is impressed in any degree by the playing of music in close proximity. Some consider that the harem-scarem dance called the Tarentella was named for the tarantula, and its toxic effects, but this is in error, since the dance was actually named for the town of Tarento, Italy, in which it originated.

Comparatively, the tiny black widow packs a wallop that puts the immensely larger tarantula to shame as a thing to be feared.

Tarantula venom is a neurotoxic protein, in contradistinction to the hemotoxic venom of *Crotalus* or *Lachesis*, and is neuron carried. It has very little disorganizing action upon red cells or other constituents of the blood stream; therefore we would anticipate its action to be expressed primarily through the central and sympathetic nervous systems rather than upon the organic constituents of the body. In fact, there is a dearth of physical expression in its symptomatology. Neurogenic expressions are its outstanding traits. All in all, in the physical work-up, a considered patient might add up to being fully within normal expectations. In actuality there is but little disturbance found in a single or a multiplicity of organs. The blood picture is not disturbed; pressures are not variable; gastro-intestinal and renal functions are not influenced; bodily weight is maintained, even in the face of a neurologic picture.

Mentally—the picture might vary from false coma to a state of protracted erythysm. Mock trances and hysteroid seizures may be evidenced, the latter being characterized quite commonly by the fact that “if there is no audience, there will be no seizure.” Throughout all mental aberrations and expressions, the two modalities spoken of before will obtain; the hyper-exquisiteness to the slightest touch and to noise or vibra-

tion. There is also produced in this mental sphere an intense amativeness or amorousness, which seems to be absolutely above and beyond the person's control, even to the point of its exhibition in public places and gatherings. The sense of circumspection and shame seems to be entirely done away with.

Neuro-Muscularly :—It is in this field that we find the most common expression of venom effect. Jerkings, twitchings, startings, and the wildest of incoordination are seen. The limbs, eyes, face, mouth, neck, arms and legs denote its effect by uncontrollable gyrations. The extremities flail without rhythm or pattern, and precision movements become a thing of the past. Direction, weight-bearing and ambulation are defeated. There is apparently no central will which may be brought to bear to control the muscle behavior. Ever-present in the states described is the aggravation of the situation by the slightest touch and noise.

There are, of course, other diverse symptoms throughout the body that may be touched upon, for we know that there is no specific limitation of action to a single portion of the economy that will be produced by any agent. However, the appeal of the mental and nervous spheres is such that we thought it best to curtail this paper to those two fields.

Clinically :—*Tarantula* would be a considered selection in hysterical states; exquisite hyperesthesia in hyper-nervous patients; patients expressing exaggerated response and reaction. Chorea would be a clinical entity for which this agent would prove a remarkable choice. It would also be thought of in ataxic situations and would deserve a close scrutiny as a favorable influence in the conditions of the spastics.

—*The Layman Speaks, Oct., '57*