

[From Major Bernard's account.]

THE ISTHMUS OF TEHUANTEPEC.

"The northern division of the Isthmus—that is to say, from the Pacific slope to the Mexican Gulf—has nevertheless suffered in times past from the small-pox. In the year 1828, in two small villages near the sea coast, east of the Coatzacoalcos River, no less than 126 persons died out of a population of 800; nor were the ravages of the disease arrested until broad 'picaduras' (roads) were cut thro' the surrounding forests to admit a free circulation of air. This had the desired effect, and the small-pox disappeared entirely.

A similar instance occurred at Huimanguillo, near the confines of Tobasco, where a malignant fever was entirely checked by felling the neighboring forests.

ELEVATED LANDS OF TEHUANTEPEC.

At the Paso de la Puerta begins another region of the Isthmus, namely that of hills and mountains. Its topographical and geological characters are entirely different from those of the plain of Coatzacoalcos River: while the latter is formed of alluvial soil, this has rock for its basis, which is covered with a variety of soil more or less deep, and of variable fertility in different places.

The wave-like hills and dales, covered by rich pasture, extend along the foot of lofty mountains. They are interspersed with clusters of luxuriant trees growing along the various tributary streams of the Coatzacoalcos, affording refreshing shelter to the large herds of cattle that range through this region.

Here may be seen spots the most romantic and picturesque that the admirer of the beauties of nature can enjoy, while quietly reposing after the labors and toils of the active business of life.

Here and there ranchos are to be met with, scattering among the valleys; and even among the mountains are several Indian villages, such as San Juan Guichicovi, which contains upwards of five thousand inhabitants who cultivate the soil.

This village is surrounded on all sides by the Cordillera of the same name. It is inhabited only by Indians, called Mijes, has an excellent climate, and would afford a delightful and healthy residence for our valetudinarians.

Our journey from hence across the Cordillera to the plains of Tehuantepec, was a constant change of most interesting scenery, which we enjoyed greatly notwithstanding the rain and very bad roads. This entire region for its salubrity cannot be surpassed by any country whatever.

The small village of Petapa, El Barrio and Santo Domingo, also built on the elevated table land, enjoy a well-merited reputation for uncommon healthiness, not only among the inhabitants of the Isthmus; but many Mexicans, as I learned later at Tehuantepec, come there even from Oaxaca and several other states of Mexico to recruit their health.

THE INDIA RUBBER TREE.

The fluid known as 'caoutchoucine,' the specific gravity of which while in its liquid state is less than that of any other liquid known to chemists, but the vapor of which is so heavy that it may be poured from one vessel to another like water, is prepared from the juice of this tree in the laboratory, and is one of the best solvents for the rubber yet known.

Take half the number of trees found within an area of one-fourth of a square mile, on the Uspanapa River, as the basis of an estimate, and allowing none to grow on the Pacific plains, there would be found not less than 2,000,000 india-rubber trees within the limits of the Isthmus, some of which yield four or five pounds of gum in a year. If from the prodigious number of trees, we suppose one-half only to be available, and a single pound per annum be the average yield, we should then have 1,000,000 of pounds, which, at the present value of forty cents, would realize the sum of \$400,000 for this article alone.

THE HORSES.

The horses found in this portion of Mexico are of small size, and almost uniformly poor in flesh. They are, however, of great endurance, and possess much more spirit than is indicated by their looks. Comparatively they are very intelligent, and under the guidance of the powerful Mexican bit are easily managed.

The inhabitants employ them principally as saddle-beasts, though sometimes for draught, in which case the load is invariably attached to the animal's tail. As ridiculous and barbarous as this may appear, it is said to cost the horse no pain; and if one may judge by the weight of the load, and the quiet manner in which the animal submits to the practice, this would seem to be the case.

THE VAMPIRE BAT.

The Vampire bat (*Vampyrus Spectrum*) exists in great numbers. Both men and animals are subject to its attacks, and nightly the latter suffer depletion from its fangs, frequently to such an extent as to be incapacitated for the next day's work. The Vampire bleeds its victim with such extreme gentleness, and such is the noiseless flutter of its velvet wings, which stir the air to a soft and fanning breeze, that the sleeper is soothed into a calm, dream-like repose; while unconscious of harm, he yields the vital fluid till he approaches the verge of delirium.

FISH CATCHING.

A species of vine known by botanists as the 'Sapindus Saponalia' is used in catching fish. The fibres of this plant, when beaten and strewn on the water, exercise an intoxicating influence, which causes the fish to rise stupefied to the surface, where they are readily taken. This mode of fishing, although prohibited under severe penalties, is, nevertheless, extensively practised by the natives.

BIRDS.

The Toucans, which are quite numerous, are not the least interesting of this class of birds. Their enormous bills, which nearly equal in size the body itself, give them a most singular and uncouth appearance. They are easily tamed, and become exceedingly familiar and playful, practising a great variety of amusing feats.

But perhaps the most important class of birds on the Isthmus are the Gallinae. The most numerous of this class are, the wild Turkey, crested Curassow, Partridge, Chachalaca, Tinamou, Quail, Pigeon and Dove; all of which are found in great abundance through all parts of the country.

The crested Curassow is a magnificent game bird: it approaches the turkey in size, and is easily domesticated, when it becomes very tame. Its plumage is of a deep shining black color, reflecting purple and green shades; and the crest, which it can elevate and depress at pleasure, is composed of twisted black feathers, narrow at the base and broad at the tip. The females have a smaller crest, and their feathers more dull. They associate in small flocks, build their nests in trees, and live on buds and fruits.

REPTILES.

Alligators are numerous in all the principal streams on the Isthmus, even far up in the mountains, but are found in much greater numbers, and of a larger size, near the sea-coast. At daybreak these monsters emerge from the water and creep slowly to the shore, on which they compose themselves for a nap, by shutting their eyes and opening their huge jaws.

As the sun rises the flies swarm into the inviting thorax, and revel for a while in undisturbed security, until the Alligator is satisfied that his 'trap' is full, when he shuts the ponderous door, and opens his eyes as composedly as if nothing had happened.

The Lizard presents an almost endless variety. The species known as the Moloch Lizard (*Moloch horridus*) which are occasionally met with, are a foot in length, armed with two horns, and completely covered with small irregular scales, to which are attached large conical acute spines of a horny substance, altogether giving them a very ferocious appearance.

INSECTS.

The Rodadors, though confined to less than one-third the breadth of the Isthmus, are exceedingly troublesome, their bites being more poisonous than that of the Mosquito, and swarming in such immense numbers that it is very difficult guarding against their attacks. The inhabitants of the country, however, seem to disregard their bites altogether. This insect possesses one redeeming quality not exhibited by the Mosquitoes, inasmuch as it suspends operations during the night; it is a singular fact, that only the female exhibit these biting propensities.

The Moyaquil, commonly found on the leaves of a species of wild plantain growing in the country, is a worm which often proves a source of great annoyance to both men and animals. So minute are its dimensions, and such is the delicate nature of its operations, that it penetrates the flesh unperceived. There it gradually increases in size and vigor until it forms a protuberance which, if left to itself, becomes a painful ulcer; the worm in the mean time bedding itself more deeply until it penetrates the bone, from which it is exceedingly difficult of extraction without the aid of surgical instruments.

They are, however, readily removed at an early stage by an external application of a little resin, derived from certain trees common in the forest. The oil of tobacco is also used as a remedy, and fire is sometimes employed to kill them. Fortunately the Moyaquil is confined to a few localities of small extent.

The 'Broca' is a small insect which often does great mischief by boring into barrels and other wooden vessels containing sweets, thus allowing their contents to escape. The usual remedy against their incursions is to envelop the barrels with a tarred paper.

The numerous well-beaten paths that traverse the country, bear testimony to the presence of ants, some of the larger species of which carry a kernel of corn with ease. A small variety of white ants deserve particular mention, as being the principal agents in the destruction of timber. Their nests are usually built of clay and leaves, adhering to the trunks and branches of trees. They always work under cover; and destroy the inner portions of the wood, leaving only a thin shell.

In this manner their movements are unperceived, and it is difficult to detect the locality and extent of their depredations. They always travel under covered passages formed of clay, by which they are entirely shielded from observation.

A species of honey-bee is found in some parts of the country in surprising numbers. They are smaller than the ordinary 'apis mellifica' of other countries, and stingless. Their nests are usually constructed in hollow trees, and such is the prolific result of their labors in the flowery fields of the Isthmus, that the Indians have been known to gather ten or twelve gallons of honey in a day.

The quality of this honey is somewhat inferior to that of the domestic bee. The quantity of wax produced by this class of insects on the Isthmus is prodigiously great, and in connection with the honey gathered by them would doubtless prove a lucrative source of trade.

At San Miguel Chimalapa, this branch already constitutes an important occupation of the people, who occasionally send to the large towns on the Pacific coast several hundred pounds of wax.

PURPLE DYE OF TYRE.

Among the numerous interesting Mollusca of this region is the *Apylisia depilans* called by the ancients 'lepus marinus,' and celebrated in history as furnishing the purple dye of vauanted Tyre. This shell-fish from its limited distribution and extreme rarity, has been regarded by some naturalists as fabulous; but its existence on the shores of the Pacific coast is clearly beyond question. There the Mollusca is found in great numbers on the rocky points, and is extensively employed by the Indians to dye a kind of coarse thread, called 'caracol,' from the local name of the animal.

At the falling of the tide it is found adhering to the rocks, from which it is easily gathered. By blowing into the shell the animal contracts itself closely, and exudes an acrid liquid, extremely fetid, with which the skeins of thread are moistened to saturation, and subsequently washed with soap and water, when they become a permanent purple color.

This operation of dyeing is said to strengthen the thread greatly, and to protect it from the effects of rot. It is manufactured to some extent by the Huave Indians who find a ready sale for it in Tehuantepec.

INHABITANTS.

The Isthmus of Tehuantepec comprises within its limits a mixed and heterogeneous population (as near as can be ascertained) of 61,000, consisting of Europeans, Creoles, Mestizos, Indians, Mulattoes, Zambos, and Negroes.

The Indians, who are by far the most numerous portions of the inhabitants, comprehend the remnants of various once powerful tribes, which, notwithstanding the changes and vicissitudes that have marked their condition since the days of the conquest, still exhibit distinctive characteristics sufficient to identify the sources from which they originally sprung.

Among these are the Aztecs, Agualulcos, Mijes, Zoques, Zapotecos and Huaves. These are distributed over the country in a manner which corresponds somewhat with its topographical divisions.

QUAIL.

The ponderous vans of the Express companies, daily lumbering by, often bear aloft and overtopping the great boxes and packages of merchandise—as a warrior's plume flutters above his helmet—festoons of feathered game, stark in death and stiffly frozen. The major portion of this vast contribution from the Western wilds to the tables of the epicurean East, consists of Quail though the trophies of game are diversified by an occasional grouse, a doe or buck and less frequently, a partridge. As each wagon passes, thus laden with the spoils of the inexorable pot hunter, it seems like a funeral car, bearing away so many of the rightful inheritors of the soil, whose places are to be filled never again by their congeners and descendants. For the annual raid into the habitats of the grouse and the quail, performed by the merciless slaughterers for market, is thinning out the several species, and ere many years their prairie ranges and close coverts will know not the presence of the once abundant game-birds.

We confess to a more than ordinary affection for the pretty quail—the gentle "Bob White" of our boyhood. We could never raise the fatal tube to do him harm without a qualm of conscience, or see his plump body fall helpless upon the meadow grass, while the torn feathers floated off with the smoke that curled from the murderous gun, without uttering a vow never again to be guilty of that shame. For Bob is a blithe, genial little fellow, affecting much the society of man, and craving his protection, often, when the wild storm rages across the bleak prairies, and the ricks and outhouses of the farmer offer better shelter than the tussocks of frozen grass. He is a domestic, home-keeping, untraveled and homely minded gentleman, confiding in his nature, and, when kindly treated, full of the reciprocity of good fellowship. Unlike his gallinaceous brethren, the grouse of the prairie, wood and mountain, he has an abiding faith in man, and it takes much hard usage to destroy this touching trait in his character. His cheerful pipe is always heard about the garner and the stacks of the agriculturist, and his mottled head and diamond eyes are constantly seen in the snug corners of the zig-zag fence, or peeping out from among the great logs, piled for the winter's fire.

See him, when the first sharp winds of winter begin to rustle the crisp spears of grass, and the early snow is drifting among the herbage with a rattle that sends a shiver through the frame of the wayfarer and the houseless; the ponds are glazed with ice and the dried seeds and husks, rudely driven by the blast, tingle like tiny bells, as they dance over the glare surface; the sky is leaden and from the distant pines come such sounds as carry to the ear the semblance of death wails.

All nature is preparing for the hibernal season, and seems to yield to its influence with but regretful acquiescence. Then, from leafy covert and secret nook, from out the poor shelter of fallen logs and piles of brush, and knots of withered stalks, and among the stubble of the wheat, and by the piles of gathered stone—memorials, these last, of youthful industry and stolid reminders of many a stubbed toe and bleeding finger—from all these harboring places and summer shelters, come the families of Quail, seeking the more tempting protection afforded in the havens of man, and evincing their confidence in him by the saucy perness of their demeanor. Then, when the deep snows come, and the thick mantle of fleecy white is over all the ground; when the roof is encumbered and the eaves are overhung with a drapery of unsullied down; when the well-sweep and the gate posts, and the hen coops are clad in fantastic garniture, and shrub and tree bend under their armor of crystals; then, the farm-

er's boy, early wending his way through the drifts to feed and water the beasts of his charge and speckling the unsullied surface with bright dots, showered from his tin lantern, wakes a bevy of the gentle birds and hears their plaintive cry of "Bob White! oh! Bob White!" as they nestle in the warm recesses of stacks. Later in the day, their tracks are seen, indented in the yielding snow, and their voices are heard as the busy rascals chipper about and make merry in their snug retreats.

Who could set a trap to entice them now? Who could be so cruel as to murder these trusting, harmless seekers after man's charity? Let the sportsman who craves the excitement of the chase, level his weapon at fairer game than the gentle, shivering quail; whose very impudence, leading him to quarter upon our premises and claim protection at our hands, is but an evidence of his belief in the creature whom most other wild things avoid with fear.

When Spring time comes, and the snowy covering has melted off; when the earth reeks with moisture and softens beneath the life-giving rays of an April sun; when the buds begin to swell and the insects put off their torpor and seek the surface; when the rivulets are freed from their icy bones, and run gurgling with glee through meadow and pasture-plot; when the sad wails of the forest are changed to hopeful murmurs and the sap starts from the roots; then the children of the family, searching for the jack-knife that was lost before the snows fell, and exploring among the chips for the missing axe, see the bevy of quail placidly sunning themselves by the south side of the barn, where the reflected warmth has dried the ground and the mellow loam affords exercise for their toes. Then, gathered in domestic harmony, they talk over their family secrets, tipping their heads to one side and gossiping after a fashion at once comical and touching. There are weddings on the carpet, now, and much bliss in anticipations; eligible matches are arranged under the lee of the corn house, and Master Bob and Miss White take pensive strolls along the edge of the kitchen garden ever and anon chirruping out a tender phrase, or laying their heads together, much in the same way that we have seen young men and maidens do, in circles of our acquaintance.

Matrimony engrosses their thoughts, and the bans have already been put up from the Great Altar of Gods' high cathedral, where everything that is, may come and worship and none shall say them nay. Bye-and-bye, there will be weddings and honeymoons, and so on, until another winter comes round and makes the Quail again the guest of the hospitable farmer.

Such was "Bob White" when we knew him, years gone by. It may be that harried and driven, shot, snared and trapped, the poor creature has been frightened from his old haunts and sent to shiver out his remainder of life in the poor shelter of the frozen stubble and the hollow log. If so, we may bid farewell to one of the kindest, most quiet, cunning and saucy of the *ferae* of our country.

God protect thee "Bob White," since man has become thine enemy. And, some day, when thy voice is no longer heard in the corn, or thy bright eyes seen peeping through the interstices of the Virginian fence, some friend of thine may write of thy virtues, thy sufferings and extinction.—[Ex.]

INDIAN STATISTICS.—The fifth volume of the work on the North American Indians, executed by Mr. Schoolcraft and published at the expense of the government, has lately been issued from the press. We condense from it the annexed interesting statistical particulars.

There are in the United States thirteen tribes who are denominated semi-civilized, belonging to three generic stocks of languages, namely: the Iroquois, Algonquin, and Appalachian. These tribes are the Choctaws, Chickasaws, Creeks, and Cherokees; the Oneidas of New York and Wisconsin, the Senecas, Onondagas, Tuscaroras and Cayugas; the Mohicans or Stockbridges, Brothertons and Christian Delawares, and the Iroquois of St. Regis Canton, New York. They number collectively a fraction under 66,000 souls; they cultivate 883,869 acres of land, raise 304,202 bushels of grain, and have about 7000 bearing fruit trees. They possess 6,052 horses, 6,766 neat cattle, 3,474 milch cows, 884 sheep, 103,999 hogs, and a total of 2,533 plows, and other agricultural implements.

Of this population, the four Appalachian tribes west of the Arkansas, namely: the Chickasaws, Choctaws, Cherokees, and Creeks, constitute by far the largest number. These tribes are not only far advanced in agriculture and industry, but they possess fixed governments, consisting of legislative assemblies, a judiciary and an elective executive.

The colonized tribes of Kansas, including the indigenous tribes, number 30,000. Of this number 14,000 consists of the fragmentary tribes gathered out of the old States since 1824. By adding to them the four Appalachian tribes, we have a total of 80,000 souls as the result of the removal policy for thirty years. The gross Indian population of Nebraska is 48,360. The whole area of the public domain still in the occupancy of the wild tribes, between the Missouri and the Pacific Ocean, is estimated at 1,733,698 square miles, or 1,065,094,890 acres, which at three cents an acre, is a fraction under \$30,000.

The statistics of education and christianity are instructive. The whole number of Indian children at school, in all the tribes who are the subjects of educational labor, is 2,695; the number of Indian adults in the same area, professing christianity, is 5,786. There are 172 white, and 98 native teachers, of all denominations.—[National Intelligencer.]