

were informed, had been done by the owner of the land, with the expectation of finding some hidden treasure. It is a source of regret to those of us who value these traces of former occupation of our soil that they had not been sacredly protected and preserved. The mound was originally about fifty feet in circumference, and six feet high in the center. We found one human skeleton that had been left exposed, many of the bones being in a perfect state of preservation. This grave had been made on the surface of the ground. Flag-stones broken to the required width had been set on their edges around the body, uniform in height, and covered with flat stones, and then with earth; other bodies had been placed alongside in the same manner, and also on the top of those first interred, and in this way after many years forming the mound as we find it. A few rods south of the mound are about twenty graves of bodies buried separately, the ground over each grave showing a depression of a bout six inches, with a piece of flat stone set at the head and foot of each grave. This may have been adopted under the influence of the teachings of the Moravians as a more Christian form of burial. In examining a field of ten acres or more near the mound, we found a great quantity of flint chippings that had been broken off in making implements, large numbers of which have been gathered up here since the settlement of this valley by the whites.

Mr. James Park, who has lived here for almost seventy years, gave me a stone implement somewhat of the shape and size of a carpenter's hatchet, made of the blue-gray stone common in this neighborhood. I have others much the shape and size of wedges used for splitting stone.

THE PIMA INDIANS OF ARIZONA.

BY CAPTAIN F. E. GROSSMANN, U. S. A.

THEIR HISTORY AND TRADITIONS.—The Pimas have but vague ideas of the doings of their forefathers, and whatever accounts may have been handed down to them have been so changed in the transmission that they cannot be deemed reliable now. Their account of the creation of the world is confused, different parties giving different details thereof. The story most generally accepted among them is that the first of all created beings was a spider, which spun a large web, out of which, in process of time, the world was formed. They believe that the Supreme Being or Creator took a nerve out of his neck and thereof made a man and a woman. According to their traditions, the first human beings lived near the Salt River, in Arizona Territory, near the McDowell Mountain. These people multiplied rapidly, and soon populated the valleys of the Salt and Gila Rivers. There appears to be a strong probability that the Pima and Papago Indians, who speak the same language, and to all intents belong to the same nation, are the descendants of the earliest occupants of this section of the country. Still the ac-

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counts of the two above-named tribes differ materially in many essential points of their early history. Both seem to have heard of a great flood, and each have their own method of explaining how their forefathers were saved from this deluge.

(The Pimas relate that the coming of the flood was well known to the eagles, for these birds, soaring among the clouds, saw the gathering of the storm. One of the eagles, friendly disposed toward the Pimas, appeared to the principal prophet of the tribe, and warned him of the approaching disaster, advising him to prepare for it. At the same time a cunning wolf (coyote) conveyed the same caution to another prophet. The former and his followers paid no attention to the counsels of the eagle; while the other prophet, knowing the wolf to be a sagacious animal, at once prepared a boat for himself and made provisions to take with him all kinds of animals then known. The Papagos claim to be the descendants of the more cautious one, the Pimas of the one who refused to be guided by the eagle. This bird appeared for the second time and repeated his caution, but the Pimas scorned his advice. At last the eagle came for the third time, violently flapped his wings at the door of the hut of the principal prophet, and with a shrill cry announced to him and his people that the flood was at hand, and then flew screaming away. Suddenly the winds arose and the rains descended in torrents, thunder and lightning were terrific, and darkness covered the world. Everything on earth was destroyed by this flood, and all the Pimas perished except one chief, named Sö'hö, a good and brave Indian, who was saved by a special interposition in his favor by the Great Spirit.)

(The prophet who listened to and profited by the caution of the wolf, entered his boat, which safely rode through the storm and landed, when the flood subsided, upon the mountain of Santa Rosa. The wolf also escaped by crawling into a large hollow cane, the ends of which he closed with some resinous substance. The Papagos of to-day believe that the prophet who saved himself by means of the boat was their forefather, and yearly visit the mountain and village of Santa Rosa, in Arizona Territory, in commemoration of the fortunate escape of the founder of their race. It is also said that a Papago will not kill a wolf.) (The Pimas, however, claim to be the direct descendants of the chief Sö'hö, above mentioned. The children of Sö'hö re-inhabited the Gila River Valley, and soon the people became numerous. One of the direct descendants of Sö'hö, King Si'-va-no, erected the Casas Grandes on the Gila River. Here he governed a large empire, before—long before—the Spaniards were known. King Si'-va-no was very rich and powerful, and had many wives, who were known for their personal beauty and their great skill in making pottery ware and ki'-hos, (baskets which the women carry upon their heads and backs.) The subjects of king Si'-va-no lived in a large city near the Casas Grandes, and cultivated the soil for many miles around. They dug immense canals, which carried the

water of the Gila River to their fields, and also produced abundant crops. Their women were virtuous and industrious; they spun the native cotton into garments, made beautiful baskets of the bark of trees, and were particularly skilled in the manufacture of earthen ware. (Remains of the old canals can be seen to this day, and pieces of neatly-painted pottery ware are scattered for miles upon the site of the old city. There are several ruins of ancient buildings here, the best preserved one of which is said to have been the residence of King Si'-va-no.) This house has been at least four stories high, for even now three stories remain in good preservation, and a portion of the fourth can be seen. The house



was built square; each story contains five rooms, one in the center, and a room on each of the outer sides of the inner room. This house has been built solidly of clay and cement; not of adobes, but by successive thick layers of mortar, and it was plastered so well that most of the plastering remains to this day, although it must have been exposed to the weather for many years. The roof and the different ceilings have long since fallen, and only short pieces of timber remain in the walls to indicate the place where the rafters were inserted. (These rafters are of pine wood, and since there is no kind of pine growing now within less than fifty miles of the Casas Grandes, this house must either have been built at a time when pine timber could be procured near the building site, or else the builders must have had facilities to transport heavy logs for long distances. It is certain that the house was built before the Pimas knew the use of iron, for many stone hatchets have been found in the ruins, and the ends of the lintels over doors and windows show by their hacked appearance that only blunt tools were used.) It also appears that the builders were without trowels, for the marks of the fingers of the workmen or women are plainly visible both in the plastering and in the walls where the former has fallen off. The rooms were about six feet in height, the doors are very narrow and only four feet high, round holes, about eight inches in diameter, answered for windows. Only one entrance from the outside was left by the builders, and some of the outer rooms even had no communication with the room in the center. There are no stairs, and it is believed that the Pimas entered the house from above by means of ladders, as the Zuni Indians still do. The walls are perfectly perpendicular and all angles square.)

The empire of King Si'-va-no became so populous after a while that some of its inhabitants found it necessary to emigrate. One of the sons of the king, with numerous followers, went, therefore, to the Salt River Valley, and there established a new empire, which, in course of time, became very prosperous. Indeed, the inhabitants became so wealthy that they wore jewelry and precious stones upon their persons, and finally erected a beautiful throne for the use of their monarch. This throne was manufactured entirely of large blue stones, (probably silver or copper ore.)

(In course of time a woman ascended this throne, She was very beautiful, and many of the warriors adored her, but she refused all offers of marriage, and seemed to be fond of no one except a pet eagle which lived in her house. The rejected suitors, jealous of the eagle, determined to kill him, but he, a wise bird, discovered their intentions, said farewell to his mistress, and flew away toward the rising of the sun, threatening destruction to those who had contemplated to take his life.)

(At the death of the queen, who married after the departure of the eagle, the government of the nation fell to her son, who was but a child in years, and weak and incapable. During the reign of this boy the eagle returned, conducting the Spaniards to his former home. These came, well armed and some mounted on horses, which before this time had been unknown to the Pimas.)

The Spaniards approached in three strong columns; one marched down the Gila River, one came from the north, and the third one from the south. These armies of strange white men terrified the Pimas, who, without competent leader and good arms, were soon defeated. The enemy devastated the whole country, killed most of the inhabitants, and leveled their fine buildings to the ground. The throne of the king was broken into small pieces, and the birds of the air came and swallowed the small blue stones, which, afterward, they spit out wherever they happened to be. This, say the Pimas, accounts for the fact that these blue stones are found but rarely and in very different localities now. (Stones of this kind are highly prized by the Pimas, and worn as charms.) But few of the Pimas escaped the general massacre, and hid themselves in the neighboring mountains, whence they returned to the valley after the departure of the Spaniards. They found all their wealth destroyed, their towns in ruins, their fields devastated, their friends and relatives slain or carried off by the enemy, and the survivors were in despair. Some few, hoping to be able to liberate some of their kindred who had been captured, followed the white men toward the south and finally settled in Sonora, where their descendants live to this day. The others remained in the Salt River Valley, increased in numbers, and again tilled the soil. But the Apaches, always bitter enemies of the Pimas, took advantage of the situation, and encroached upon their fields to such an extent that the Pimas finally returned to the Gila River Valley, where they still live. They never re-erected the stately mansions of their forefathers, but, humbled by defeat, were content to live in the lowly huts which are occupied by the Pimas of the present day. Their women were virtuous and strong, and in the lapse of time numerous children were born; the tribe increased in numbers, and, not many years after their defeat by the Spaniards, the Pimas were strong enough to cope with the Apaches, against whom they have carried on a bitter warfare ever since. At one time they were very poor indeed. Owing to the poverty of the tribe, their leaders never returned to the luxurious style of living of the former kings. They were simply called "chiefs,"

but the supreme control of the tribe was still in the hands of the old royal family, and descended from father to son. These head-chiefs were brave warriors, and under their leadership the Pimas achieved many victories. At one time the Comanche Indians came from the east, but the Pimas repulsed them after a bloody battle, which was fought near the present mail-station Sacaton. At last the reign descended to Shón-tarl-Kör-li, (old soldier,) the last, in a direct line, of the old royal house. He was a bold warrior, and highly esteemed by the whole tribe. During his reign the Maricopa Indians, imposed upon and persecuted by the Yumas and Mohaves, came to the country of the Pimas in two different parties, one from the southwest and the other from the northwest. The new-comers asked a home and protection, promising to aid the Pimas in their scouts against the Apaches. Their request was granted, and when the Yumas, who had given pursuit to the Maricopas, appeared near the country of the Pimas, the latter turned out in force, and, united with the Maricopas, defeated the Yumas in a battle fought near the present Maricopa Wells. Since then the Yumas have not dared to molest the Maricopas. The latter remained with the Pimas, were permitted to cultivate a small portion of their land, and have been ever since on friendly terms with them. The Maricopas of to-day have two villages on the reservation, and number three hundred and eighty-two. The Pimas have intermarried with the Maricopas; still the latter preserve their own language, which is that of the Yumas, Cocopas, and Mohaves. At last Shón-tarl-Kör-li, the chief, was fatally wounded by the Apaches, receiving a musket-ball in his forehead. Upon his death-bed this old chief, who had no sons to succeed him, recommended that Stjöv'e-teck-e-mús, one of the sub-chiefs, who was a renowned warrior, should be elected head chief. This was done, and Stjöv'e-teck-e-mús, who was the father of the present head-chief, reigned for years, respected and beloved by all his tribe. Young Antonio Azul, or A-vá-at-Ká-jo, (the man who lifts his leg,) as he is called by the Pimas, accompanied his father, the chief, on all his scouts when he became old enough to use arms, and at one time went with him to Sonora and visited some of the Mexican towns. Stjöv'e-teck-e-mús led the Pimas many times against the Apaches, was repeatedly wounded, but finally died in consequence of sickness. Upon his death Antonio Azul assumed the position of his father, but dissension arose in the tribe. Many claimed that Antonio had no title to the supreme command; that his father had been chosen chief on account of his boldness and wisdom; that these virtues did not necessarily descend from father to son, and that the choice of a new chief ought to be left to the warriors of the tribe. Some asserted that a distant relative of the chief proper was among the tribe, who, having the royal blood in his veins, ought to govern.

Arispa, a petty chief, well known for his bravery in the field, and withal a crafty and unscrupulous man, took advantage of the general confusion, and, with the intention of usurping Antonio's place, accused

the latter of witchcraft. Antonio was tried and declared not guilty, and since then has been generally recognized as head-chief. Still the followers of Árispa, who are the worst Indians on the reservation, refuse to be guided by Antonio, and the latter evidently believes his position to be insecure, and therefore temporizes with the bad men of the tribe rather than run the risk of a revolution and possible loss of his rank by compelling them to behave themselves. Of course the Indians know him thoroughly, and take advantage of his weakness.

Since Antonio Azul has become the head-chief of the tribe the overland road from Texas to California, which passes through the Pima land, has been established, and in consequence thereof these Indians have been thrown in contact with the Americans. In 1859 a reservation, containing one hundred square miles, was set aside for them by act of Congress, and upon and near it they have resided ever since. Eight years ago the small-pox raged among them to an alarming extent, and many, particularly children, died of this disease.

It is a lamentable fact that the Pimas have retrograded since the advent of the white men among them, both morally and physically. Fifteen years ago, when Butterfield's mail-coaches first passed through their land, the Pimas were a healthy race, the men brave and honest, the women chaste. To-day foul diseases prevail to an alarming extent, many of the women are public prostitutes, and all will pilfer whenever opportunity offers.

RELIGION.—The Pimas believe in the existence of a Supreme Being or Creator, whom they call "Prophet of the Earth," and also in an evil spirit, (che-á-vurl.) They believe that, generally, their spirits will pass to another world when they die, and that there they will meet those who have gone before them. (They say that whenever any one dies an owl carries the soul of the departed away, and hence they fear owls, (which they never kill,) and they consider the hooting of this bird a sure omen that some one is about to die.) They give a confused account of some priests, (pár-le,) who, they state, visited their country years ago and attempted to convert them to Christianity. These priests were French, and to this day the Pimas call the French "pár-le-sick;" plural, "pá-par-le-sick." It does not appear that these missionaries met with success. The Pimas have no form of worship whatever, and have neither idols nor images. They know that the Mexicans baptize their children, and sometimes imitate this ceremony. This baptism is applied, however, only as a charm, and in cases of extreme sickness of the child. When the ceremonies and charms of the native physicians (má-ke) fail to produce a cure, then the sick infant is taken to some American or Mexican, and even Papago when he is known to have embraced the Christian faith. Generally Mexican women perform the ceremony. If the child recovers it receives a Spanish name, by which it is known ever after; but these names are so much changed in pronunciation that strangers would hardly recognize them. Pedro, for instance, becomes Pí-va-lo; Emanuel, Má-

norl; Cristobal, Kís-to; Ignazio, I'-nas; Maria, Már-le, etc. It is certain that their religion does not teach them morality, nor does it point out a certain mode of conduct. Each Pima, if he troubles himself about his religion, construes it to suit himself, and all care little or nothing for the life hereafter, for their creed neither promises rewards in the future for a life well spent, nor does it threaten punishment after death to those who in this life act badly. They have no priest to counsel them, and the influence of their chiefs is insufficient to restrain those who are evil-disposed. The whole nation lives but for to-day, never thinks of the wants of the future, and is guided solely by desires and passions. (They believe in witches and ghosts, and their doctors (má-ke) claim to know how to find and destroy witches. Almost anything is believed to be a witch. Usually it is a small piece of wood, to which is tied a piece of red flannel, cloth, or calico by means of a horse-hair.) Should one of these be found in or near one of the Pima huts, the inhabitants thereof would at once abandon it and move elsewhere. They believe that all sickness, death, and misfortunes are caused by witches. If, therefore, a Pima is taken sick, or loses his horse or cow, he sends for one of the medicine-men, whose duty it becomes to find and destroy the evil spirit who has caused the mischief. The medicine-man on these occasions masks his face and disguises himself as much as possible. He then swiftly runs around the spot supposed to be infested, widening his circles as he runs, until, at last, he professes to have found the outer limits of the space of ground supposed to be under the influence of the witch. Then he and his assistants (the latter also masked) drive painted stakes into the ground all about the bewitched spot. These sticks, painted with certain colors found in the mountains, are said to possess the power of preventing the escape of the witch. (Now begins the search for the witch; everything is looked into, huts are examined, fences removed, bushes cut down, until, at last, the medicine-man professes to find the witch, which usually is the above-described stick, horse-hair and red cloth.) Of course, this so-called witch has been hidden previous to the search, by some of the assistants of the medicine-man. It is burned at once, and the uninitiated fondly believe that, for a time at least, they will be free from the evil influences of the witch thus destroyed. Of course, this mode of treatment seldom produces a cure of sick people, but the Pimas know nothing whatever of medicines; their medicine-men never administer anything internally, and the above ceremony is the principal attempt made to cure the sick. (Sometimes, for instance, in case of pains in the chest or stomach, they scarify the patients with sharp stones or place burning coals upon the skin, and in rare instances the patient is placed upon the ground, his head to the west, and then the medicine-man gently passes a brush, made of eagle feathers, from his head to his feet; after which he runs several paces, shakes the brush violently, and then returns to the patient to repeat, again and again, the same manœuver.) They believe that, by this operation, the sickness

is drawn first into the brush and thence shaken to the winds, and bystanders keep a respectful distance for fear of inhaling the disease when it is shaken from the brush. Some doctors pretend to destroy sickness by shooting painted arrows from painted bows at imaginary evil spirits supposed to be hovering in the vicinity of the patient.

(The Pimas know many herbs which they use as food at times when wheat is scarce, but they have no knowledge of medical properties of herbs or minerals, with the only exception of a small weed, called *colondrina* by the Mexicans, which, applied as a poultice, is a certain remedy for the bite of a rattlesnake.)

It is believed that all efforts to christianize the Pimas would fail, not because any of them would oppose such attempts, but because they all would be entirely indifferent to the new teachings.

BURIAL OF THE DEAD.—The Pimas tie the bodies of their dead with ropes, passing the latter around the neck and under the knees, and then drawing them tight until the body is doubled up and forced into a sitting position. They dig the grave from four to five feet deep, and perfectly round, (about two feet diameter,) and then hollow out to one side of the bottom of this grave a sort of vault large enough to contain the body. (Here the body is deposited, the grave is filled up level with the ground, and poles, trees, or pieces of timber placed upon the grave to protect the remains from the coyotes, (a species of wolf.) Burials usually take place at night without much ceremony.) The mourners chant during the burial, but signs of grief are rare. The bodies of their dead are buried, if possible, immediately after death has taken place, and the graves are generally prepared before the patients die. Sometimes sick persons (for whom the graves had already been dug) recovered; in such cases the graves are left open until the persons for whom they were intended die. Open graves of this kind can be seen in several of their burial-grounds. Places of burial are selected some distance from the village, and, if possible, in a grove of mesquite bushes. (Immediately after the remains have been buried, the house and personal effects of the deceased are burned, and his horses and cattle killed, the meat being cooked as a repast for the mourners. The nearest relatives of the deceased, as a sign of their sorrow, remain within their village for weeks; and sometimes months, the men cut off about six inches of their long hair, while the women cut their hair quite short.) (The Pima men wear their hair very long; many have hair thirty-six inches long, and often braid it in strands; only the front hair is cut straight across, so as to let it reach the eyes. The women, who also cut the front hair like the men, part their hair in the middle, and wear it usually long enough to let it reach a little below the shoulders. The hair is their only head covering. The men are proud of long hair, braid it and comb it with care, and to give it a glossy appearance frequently plaster it over with a mixture of black clay and mesquite gum. This preparation is left on the hair for a day or two and is then

washed out, when it leaves the hair not only black and glossy, but also free from vermin.)

The custom of destroying all the property of the husband when he dies impoverishes the widow and children and prevents increase of stock. The women of the tribe, well aware that they will be poor should their husbands die, and that then they will have to provide for their children by their own exertions, do not care to have many children, and infanticide, both before and after birth, prevails to a very great extent. This is not considered a crime, and old women of the tribe practice it. A widow may marry again after a year's mourning for her first husband; but having children, no man will take her for a wife and thus burden himself with her children. (Widows generally cultivate a small piece of ground, and friends or relatives (men) generally plow the ground for them.)

MARRIAGES.—Marriages among the Pimas are entered into without ceremony, and are never considered as binding. The lover selects a friend, who goes with him to the hut of the parents of the girl and asks the father to give his daughter to his friend. If the parents are satisfied, and the girl makes no objections, the latter at once accompanies her husband to his hut, and remains with him as long as both feel satisfied with the compact. If, however, the girl refuses, the lover retires at once and all negotiations are at an end. Presents are seldom given unless a very old man desires a young bride. Wives frequently leave their husbands and husbands their wives. This act of leaving is all that is necessary to separate them forever, and either party is at liberty to marry some one else, only at the second marriage the assistance of a friend is dispensed with. Instances of fidelity and strong affections are known, but many of the wives do not hesitate to surrender their charms to men other than their husbands, which, though possibly disagreeable to the husband, is not considered a crime by the tribe. Only the worst of the women of the tribe cohabit with the whites, but it is undeniable that the number of such women is increasing from year to year. But, though this has caused a great deal of disease in the tribe, which disease is rapidly spreading, still not one of the chiefs or old men of the nation appears to have thought it necessary to raise a warning voice or propose punishment to the offenders, and prostitutes are looked upon as inevitable, and are by no means treated with contempt or scorn by the Pimas. Modesty is unknown both to men and women. Their conversation, even in the presence of children, is extremely vulgar, and many of the names of both men and women are offensive.

Generally several married couples with their children live in one hut, and many of the men who can support more than one wife practice polygamy. (The wife is the slave of the husband. She carries wood and water, spins and weaves, has the sole care of the children, and does all the work in the field except plowing and sowing.) It is the Pima

woman that, with patient hard labor, winnows the chaff from the wheat and then carries the latter upon her head to the store of the trader, where the husband—who has preceded her on horseback—sells it, spending perhaps all the money received for it in the purchase of articles intended only for his own use. Pima women rarely ride on horseback. The husband always travels mounted, while the wife trudges along on foot, carrying her child or a heavily laden *ki-ho* (basket) on her head and back. Women, during child-birth, and during the continuance of their menses, retire to a small hut built for this purpose in the vicinity of their own dwelling-place. Men never enter these huts when occupied by women, and the latter while here have separate blankets and eat from dishes used by no one else.

WEAPONS AND MANNER OF FIGHTING. (The only weapons used by the Pimas before the introduction of fire-arms were the bow and arrow and war-club.) For defensive purposes they carried a round shield, about two feet in diameter, made of rawhide, which, when thoroughly dry, becomes so hard that an arrow, even if sent by a powerful enemy at a short distance, cannot penetrate it. These weapons are still used by them to a great extent, and, like all Indians, they are good marksmen with the bow, shooting birds on the wing and fishes while swimming in the shallow waters of the Gila River. For hunting fishes and small game they use arrows without hard points, but the arrows used in battle have sharp, two-edged points made of flint, glass, or iron. When going on a scout against the Apache Indians, their bitter foes, the Pimas frequently dip the points of their arrows into putrid meat, and it is said that a wound caused by such an arrow will never heal, but fester for some days and finally produce death. The war-club is made out of mesquite wood, which is hard and heavy. It is about sixteen inches long, half being handle, and the other half the club proper. With it they strike the enemy on the head. This weapon is even now very much used, for the Pimas rarely attack their enemies in open daylight. They usually surround the Apache rancheria at night, some warriors placing themselves near the doors of all huts; then the terrible war-cry is sounded, and when the surprised Apaches crawl through the low doors of their huts the war-clubs of the Pimas descend upon their heads with a crushing force. The Pimas never scalp their dead enemies; in fact, no Pima will ever touch an Apache further than is necessary to kill him. Even the act of killing an Apache by means of an arrow is believed to make the Pima unclean whose bow discharged the fatal arrow. They firmly believe that all Apaches are possessed of an evil spirit, and that all who kill them become unclean and remain so until again cleansed by peculiar process of purification. (The Pima warrior who has killed an Apache at once separates himself from all his companions, (who are not even permitted to speak to him,) and returns to the vicinity of his home. Here he hides himself in the bushes near the river-bank, where he remains secluded for sixteen days, conversing with

no one, and only seeing during the whole period of the cleansing process an old woman of his tribe who has been appointed to carry food to him, but who never speaks. During the twenty-four hours immediately following the killing the Pima neither eats nor drinks; after this he partakes of food and water sparingly, but for the whole sixteen days he cannot eat meat of any kind nor salt, nor must he drink anything but river-water. For the first four days he frequently bathes himself in the river; during the second four days he plasters his hair with a mixture of mesquite gum and black clay, which composition is allowed to dry and become hard upon his head, and is washed out during the night of the eighth day. On the ninth morning he again besmears his head with black clay without the gum; on the evening of the twelfth day he washes his hair, combs it, braids it in long strands, and ties the end with red ribbon or a shawl; and then for four days more frequently washes his whole body in the Gila River. On the evening of the sixteenth day he returns to his village, is met by one of the old men of his tribe who, after the warrior has placed himself at full length upon the ground, bends down, passes some of the saliva in his mouth into that of the warrior, and blows his breath into the nostrils of the latter. The warrior then rises, and now, and not until now, is he again considered clean; his friends approach him and joyfully congratulate him on his victory.)

The Apache Indians, the most savage on the continent, during the past twenty years have murdered hundreds of whites and Mexicans, and have thus obtained a large supply of fire-arms and ammunition. In order to cope with them successfully the Pimas have purchased many guns and pistols, and are now tolerably well armed with improved weapons. No restriction has ever been placed on the sale of arms and ammunition to these people.

The Pimas never capture Apache men. These are killed on the field, but women and girls and half grown boys are brought back to the reservation at times, though frequently all the inhabitants of the Apache village are killed.

Apache prisoners are rarely treated in a cruel manner. For the first week or two they are compelled to go from village to village and are exhibited with pride and made to join the war-dance. Often, too, the peculiar war-whoop of the Apaches is sounded by some old Pima squaw as a taunt to the prisoners, but after the lapse of a few weeks they are treated kindly, share food and clothing with their captors; and generally become domesticated, learn the Pima language, and remain upon the reservation. Instances have occurred when Apache prisoners have attempted to escape, but they have invariably been overtaken and killed as soon as recaptured. Quite a number of captured Apache children are sold by the Pimas to whites and Mexicans. These children, if properly trained, are said to become very docile and make good house-servants.

In rare instances a Pima will even marry an Apache woman after she

women resided for two or three years on the reservation, but generally full-grown Apache women become public prostitutes, and their owners appropriate the money received by these women from degraded white men.

PIMA INDUSTRY AND FOOD.—The men do not labor except so far as is necessary to enable them to raise a crop. Each village elects two or three old men, who decide everything pertaining to the digging of acequias and making of dams, and who also regulate the time during which each land-owner may use the water of the acequia for irrigating purposes. Each village has constructed years ago an acequia, (irrigating canal.) In order to force the water of the Gila River into their acequias the Pimas dam the river at convenient spots by means of poles tied together with bark and raw-hide and stakes driven into the bed of the river. Small crevices are filled with bundles of willow-branches, reeds, and a weed called "gatuna." These frail structures rarely stand longer than a year and are often entirely carried away when the river rises suddenly, which occurs in the spring of the year, if, during the winter, much snow has fallen upon the mountains whence the stream issues, and also sometimes during the summer after heavy showers. Their acequias are often ten feet deep at the dam, and average from four to six feet in width, and are continued for miles, until finally the water therein is brought on a level with the ground to be cultivated, when the water is led off by means of smaller ditches all through their fields. Having no instruments for surveying or striking of levels, they still display considerable ingenuity in the selection of proper places for the "heads of ditches."

The Pimas and Maricopas have a reservation containing one hundred square miles and extending along the Gila River for a distance of nearly twenty-five miles; only a comparatively small part of this area, however, is available for agricultural purposes, for a portion of the soil on the reservation is strongly impregnated with alkali; some spots are marshy, and all the land beyond the immediate river bottom-land so high above the level of the river that irrigation becomes impracticable, considering the limited means for making acequias at the disposal of the Pimas.

The Indians do not cultivate all the land that might be tilled, for their fields do not average more than from ten to fifteen acres to the family; nevertheless they are dissatisfied with the size of their reservation, asserting that their forefathers had always been in possession of a much larger portion of the Gila Valley, and since the valley above the reservation has been settled up by Americans and Mexicans, the Indians have frequently encroached upon the fields of the latter, whom they consider in the light of intruders, and it is apprehended that sooner or later serious difficulties will arise.

The Pima men plow the land with oxen and a crooked stick, as is done by the Mexicans; they sow the seed and cut the grain; (the latter is done

with short sickles.) Horses thrash the grain by stamping. The women winnow the grain, when thrashed, by pitching it into the air by basketfuls, when the wind carries off the chaff; they convert the wheat into flour, grinding it by hand on their *metates*, (a large flat stone upon which the wheat is placed, after having been slightly parched over the fire previously, and whereupon it is ground into coarse flour by rubbing and crushing with another smaller stone.) The principal crop is wheat, of which they sell, when the season is favorable, 1,500,000 pounds per annum. They also raise corn, barley, beans, pumpkins, squashes, melons, onions, and a small supply of very inferior short cotton.

The diet of the Pimas is very simple; animal food is used only on occasions of ceremony, although they possess large numbers of beef-cattle and chickens. They do not use the cow's milk, manufacture neither butter nor cheese, and do not eat the eggs of their hens. Very few will eat pork. But whenever they kill a cow, steer, or calf, they eat every part of it that can possibly be masticated, intestines included. Should an animal die, no matter what the disease, they eat its meat without apparent evil effects upon their health. At times they hunt the rabbit, which is about the only game (quadruped) in their country. Fish, during the months of April and May, are also extensively eaten.

Wheat, corn, beans, and above all, pumpkins and mesquite-beans are their principal food. The latter grow wild in abundance, and millions of pounds are gathered annually by the women of the tribe. These beans are gathered when nearly ripe, then dried hard, and when required as food first pounded in a wooden mortar and then boiled until they become soft. The water is then squeezed out, and the pulpy substance remaining molded into loaves, which are baked in the hot ashes. The bread thus obtained has a sweetish taste, is very nourishing, but, being very heavy, can hardly be easily digested.

The women also collect, in proper season, the fruit of the *saworra*, (Columbia cactus,) out of which they manufacture the native whiskey, (called *tiswin*.) This, after one fermentation, must be used at once, for otherwise it becomes sour. All Pimas are inordinately fond of this beverage, and old and young partake of it until the whole nation are wildly dancing about in a drunken frenzy, until at last they drop to the ground overcome by the stupefying effect of the liquor.

The women also spin and weave a coarse kind of blanket, gather large quantities of hay annually, which are sold to white men, gather and carry all the fuel needed by their family, make the *ki-ho*, a peculiarly constructed basket carried on the back of the head and shoulders by means of a broad straw strap fitting across the forehead, manufacture, of willows and reeds, superior baskets, which are made so perfect that they will hold water, and finally excel in the manufacture of a coarse kind of pottery-ware, making jugs, dishes, plates, and all their other household utensils.)