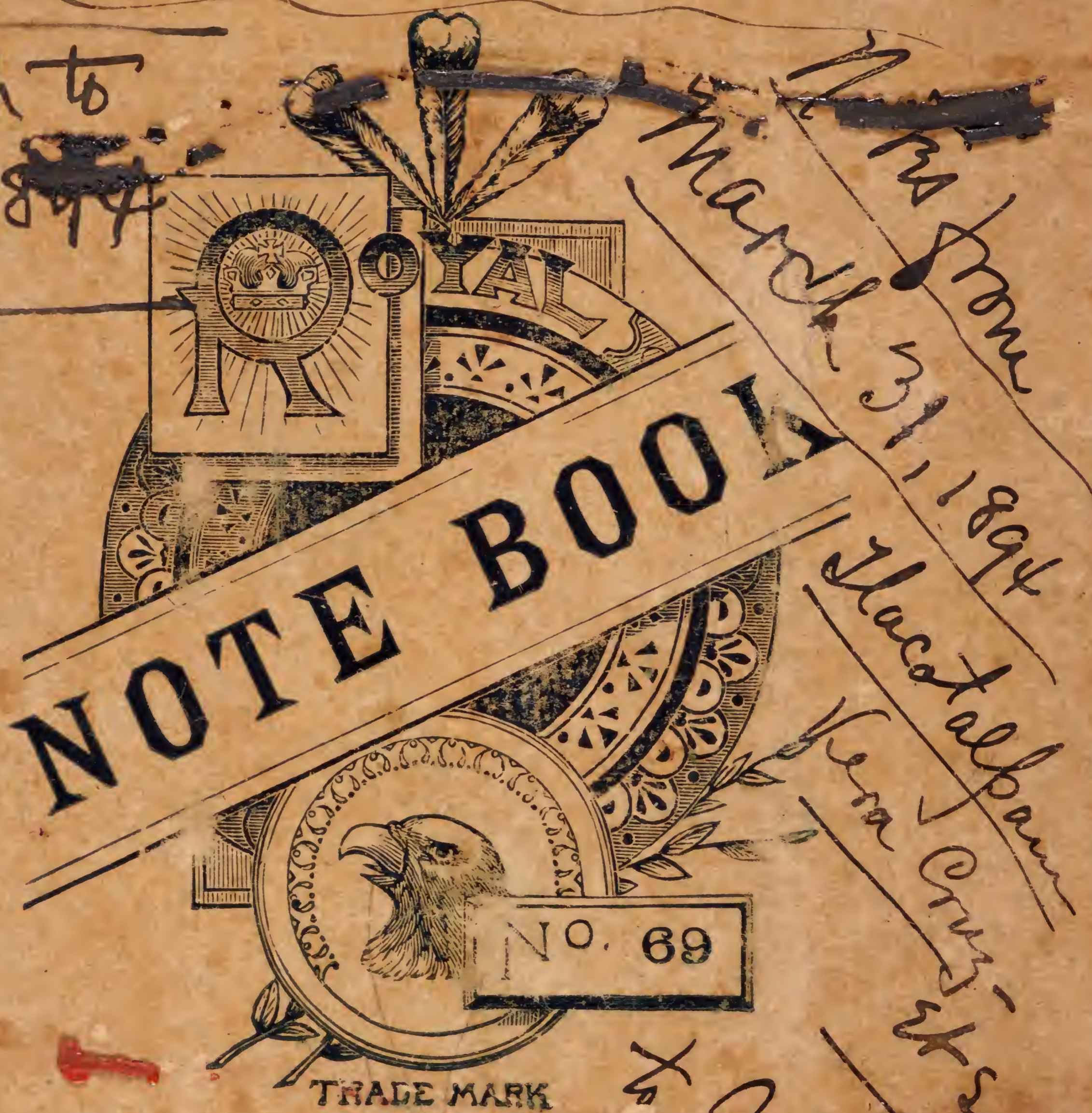


Memoranda
Book References and
Localities

March to
July 1894



~~March to~~
March 31, 1894

Macot alpan

Vera Cruz -
It say

to July 12 / 1894
Caxaca
Tempoaltepec

Book References

see other end of book for
localities

E. W. Nelson
U.S. Dept. Agriculture
Washington D.C.

Due from E.A.G. June 1 1895

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Ignacia de Armas

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Baron Egloffstein.

W. Appleton & Co N. Y. 1864
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Jefe at San Andrés Tuxtla
Carlos A. Pasquel

440 3 of 0
First eruption of Vol. Tuxtla in
1664 & the second one March 2
1793

Earthquake felt at San Andrés Tuxtla
April 12 about 3.36 PM

A second one occurred at same
place at 10.20 PM on Apr. 19. The
latter was much stronger than first.

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By Nichols

McMillan Co - London

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on an exc. to slope of Orizaba by
Hugo Finck

Falls of Rio Cosoapan which
drains L. Calumaco -

Large fall Aipantla = 3 jets
of water in indian
La Vigia = the watch -

Howard Miller, Immigration Agent
of Mex. Govt in City of Mex.

Telegraph to Felipe Barragan
at San Juan Evangelista
for horses for San Juan
to meet you at Jilile.

Continuation of March 31, 1894-
Ilaotalpam, Vera Cruz-
Upon arrival I learned that a
boat would leave the next morning at 4
a.m. for points on the river ~~at~~ Cosamalo-
pam so we prepared to take it.

April 1st. When the sun
arose in the morning we were already
many miles up stream churning along
with a wheezy little steam wheel boat.
The morning breeze blowing up the stream
had been decidedly chilly before the
sun came up so that the first warm
rays were peculiarly grateful. As day light
came on we could see large sugar cane
plantations along the banks, with scattered
sugar mills. As we passed each of the latter
our engineer saluted, & was answered
by the steam whistles. During the entire
day we pursued an upwound course
along the winding stream (from 200-300 yds
from bank to bank). The banks were
low & level but where not cleared

away a low dense growth of small trees, bushes, vines concealed the back country.

Many palms 25-35 ft. high were seen & with the bananas & coconut palms that were growing about nearly every ranch along the bank made up the main features of the landscape that would suggest that we were within the tropics.

A few white herons, 3 species of Kingfishers, Fishhawks & Cormorants (mexicanus) were the principal birds noted. We stopped at several ~~small~~ sleepy little towns along the route, landing a few passengers & some coon & then steamed on our way again. In the afternoon we reached Chacaltiquig where we changed from the steamer to a conveyance called the ~~wagon~~ ^{wagen}. This was a species of Coach with a ~~long~~ seat along each side behind the driver. 3 half broken mules were hitched on & after a few minutes devoted to the eccentric performances of our motor power we dashed out of town amid the great excitement created among dogs & naked children.

The road ~~for~~ about ten miles lies through a fine level country of rich alluvial soil with only a patch of cultivated land here & there. The people along the route were apparently satisfied to remain miserably poor rather than exert themselves. The houses were ~~the~~ of wattle or mud & wattle walls roofed with steep thatches of grass or palm leaves, dirt floors & unglazed windows with a familiar grouping of dogs, pigs, chickens, & naked children were the most salient features of the places we passed. Throughout this district it is common for children of both sexes of the lower people to run about perfectly naked until they are several years old, & many are half naked until they reach 12 or 14 years. All along the route the low woods showed ~~marvellously~~ beautiful masses of foliage & many flowering shrubs & trees while palms were common. ~~At dusk we drove into the~~

As we drove along through the narrow road cut through the vegetation it was amusing to see the alacrity with which all of the

horsemen we met gave us the right way.

Our driver seemed duly impressed with the importance of his position & would give an imperious wave of the hand to the horsemen & the latter at once spurred their horses into the dense thicket until we had passed.

At dusk we drove into Otatitlan, known locally as the Santuario from the fact that a so called holy figure of Christ is in the church here. This figure is life size & carved of wood & represents Christ on the cross. It is said to have been found ^{him} floating down the river on a raft from some mysterious source & is greatly venerated by all the Indians of this region who make pilgrimages here the first of May each year, from a hundred miles or more to pay devotions here. A fine church is built to contain the image & at the time of my visit \$7000 dollars were being spent in painting & decorating the church in preparation for the coming pilgrimage when the Bishops & various of the clergy would appear here. I was informed that the gifts of the Indian pilgrims here each year amounts to the neighborhood of \$20,000. The Indians here attribute many wonderful things

to this image. One story is to the effect that a certain woman had been told that the image was truly flesh & blood but was doubtful. In order to test it ~~she~~ while paying devotions at the altar she leaned forward & bit the image on the calf of the leg. Her teeth all fell out on the spot and a stream of blood trickled down the leg of the image! This town contains some 1200 or 1500 people who manage to make nearly a good living out of this pilgrimage so that they are very independent about doing work of any kind. A surveyor who was surveying & platting the town at the instance of the local authorities was obliged to hire men from another place to assist him while I found it very difficult to get anyone to hire me horses even at large prices to make a trip to the next town. The next day after my arrival here

April 2^d, my baggage came up to Otatillan ^{today} on another small steamer which reaches this point during low water.

April 3^d, Having secured horses for ourselves to make the trip to Justepe, it was found necessary to ship my baggage by canoe as no proper pack saddles could be found

in town. When we prepared to start,
accompanied by a boy to bring back the
horses, we found that an old woman
was to accompany us - She mounted
astride of my horse & then with a
huge lighted cigar in one corner
of her mouth & a tall peaked straw
hat on her head she made a
figure that furnished me some quiet
amusement as she ambled
through the streets & out of town
with us. Our route lay along the
course of the river most of the way
and the country ~~was~~ is slightly rolling.
We passed several small ranches devoted
to stock raising on a small scale &
then through a belt of ^{low} forest full of
palm trees. Finally we came out on
the river bank nearly opposite Justicie
& were ferried across while our horses
swam over. Entering the town we
soon found a semi-private house
where we secured board & lodgings.
This town is just within the state of Oaxaca
the line between Oaxaca & Vera Cruz passing
midway between Otatitlan & Justicie.
Justicie is the place where Gen. Diaz

issued his pronunciamentos leading
up to his ultimately successful revolution.
It is an obscure town far from R. R.'s &
other means of communication with
the outside world, ~~with the~~ except for the small
river steamers which get up to it during
high water of the rainy season. As at
Otatitlan nearly all of the houses here are built
of upright sticks covered with mud & roofed
with sharply pitched double roofs of palm
leaves over a framework lashed together
with vines. Unglazed windows with
heavy wooden shutters to close at night
& similar doors are almost universal.
The place, like most other towns has very
little life, the people living a self-centred
dull existence with few or no newspapers,
books or other means of keeping in touch
with the world. Things of ordinary everyday life
among more advanced people seem like
vague fairy tales to these people. ~~Here~~
This is the centre of a great extent of fine
agricultural country where fine apples,
bananas, sugarcane, rice & many
other tropical products do very well
but as yet little effort is being made to do
more than produce enough to barely support
the scanty population. Throughout this region

The population is mainly Indian with a small proportion of mixed bloods, some Spaniards or their descendants & a very few foreigners - A few Americans are settling in this region for the purpose of coffee growing. The altitude of this place is about 300 ft. above sea level. (During the winter, or dry, season it is comparatively healthy but in summer it is very unhealthy - The last of May 1894 a form of yellow fever was common there & many people died from it.)

The disease was accompanied by vomiting & purging in its severe form & at times death came within a few hours. An American I left there came down later & said he saw one Indian lie down beside a house in one of the main streets of town & lie there from 11 a.m. to 4 p.m. when he died from this disease without anyone offering him the least assistance.)

The man I stopped with was formerly worth 30 or 40,000 dollars but owing to failures in cotton & tobacco crops he was practically ruined although he still has some thousands of acres of land. He has one of the few large, tiled, adobe houses with pillared porticoes that the town affords. Here, with the assistance of two nearly grown sons he runs a petty drinking cantine & store the entire stock not being worth over 200 dollars. By this & a small ranch

Cuthbert on shores of some Indians

he manages to live, but neither he nor his sons seem to have the least idea of trying to do anything beyond gaining sufficient to live upon from day to day. The old man is anxious to sell some of his land but beyond this has little desire to accomplish anything.

In the family are several grown daughters whose life is wholly passed in a small round of light household work (all hard work being done by Indian servants) & idleness.

I was there a week during which I never saw any of the daughters read anything or even leave the house for a walk. A little arranging

of the rooms in the morning & embroidery in the afternoon with hours passed sitting in aimless idleness filled up each successive day.

As this family was among the best in the town it was quite evident that a high intellectual level is not sought here. The head of the family took no papers & seemed to be ignorant of all current affairs even in his own country. Above this town at

Valle Nacional about 25 miles up the river on a branch is the noted tobacco district.

The traffic along this river is ~~wholly~~ wholly by canoes made from large trees by the natives, some of these canoes are very large & will carry 6 or 8 tons. They have a "toldo" or arched house near the stern made by lashing mats or a canvas over a framework of

poles. A stout mast with a large square sail is used when the wind is favorable. ~~Some~~ Clumsy oars or poles to use when advancing along the banks make up the motive power. The clumsy oars are lashed to a peg in the gunwale and used without the least feathering, by short strokes made mainly by the arms, the oars making very little body motion. The poles are forked at lower end & are 12 or 15 ft. long. They are thrust into the mud & the pole then pushes heavily against the end & runs back about $\frac{1}{3}$ the length of the boat. Two men or 3 men pole heavy canoes along 2 miles an hour or more in this way.

These canoes are flat-bottomed with a broad flat platform extending up & out from bow & stern. This is the general shape of both large & small canoes except the very small ones which are merely dugouts. All of the larger canoes have wooden benches on the inside.

April 7th Today we left on horse-back for a camp that I made on the edge of the virgin forest about 10 miles north of town. The road led over slightly rolling country covered with thick second growth. Our road led through some miles of matted jungle where long thorny vines & bushes interlacing across the trail caused us much trouble in making our way. We camped under a raised hut partly thatched with palm leaves & open on all sides to the weather. The thickets came close up on all sides

Juxtepec

and a few hundred yds. away began the rougher hills covered with virgin forest. The trees & bushes were wholly tropical. Cedars, mahogany, rubber, palms, Cecropias & others ~~being~~ being conspicuous. The rocks were all limestone but water is very scarce everywhere except along the streams which occur at considerable intervals. We had an Indian hunter with us & a boy to attend to the camp. Peccaries, deer, semisates & monkeys (*Atletes villosus*) were the main game animals here but the two large species of pheasants were common & *Chachalacas* abundant. The two last nights of our stay occurred heavy showers & on the 10th of April I broke camp & returned to town. Our return was so timed that we rode for over 2 hours through an extremely heavy rain storm. We were wet to the skin at once after which we did not mind the warm downpour which came in heavy drops that rattled through the tree tops with a loud rushing noise that could be heard for a considerable distance before the advancing storm reached us.

Read to her

April 13th Took a canoe & descended the river to Otatitlan (about 20 m. by stream). Just as we left Juxtepec I saw the fin of a small shark cutting the water & my men said that they are not uncommon up to this point in the river. They are small 'dog fish' 3 to 4 ft. long. A few crocodiles are also found along the river here although we saw none.

April 14th Otatlan - Vera Cruz. We
stayed here a few days in a small
wooden hotel. The rooms are ruddy floored
with brick & are little more than series
of wooden boxes with walls about 9 or 10 ft.
high with a door in each end & a tiled,
~~double~~ pointed roof over all -
rude cots with a single sheet, a rush mat
& a pillow are furnished for sleeping accom-
modations at 50¢ a night. Here as elsewhere
in the hot country the food is cooked with
so much oil or grease that it is very
unpalatable to an unsophisticated taste.
North of this place a few miles are some
grassy plains bordered by oak forest
although the altitude is less than 3000 ft. above
sea level. Near the river where the ground
is damper the vegetation is similar to that
near Tuxtla. The latter place is about
the extreme lower limit of the damp climate
that forms the humid tropical belt along the
foothills & low mts. From about Otatlan
& down to the coast the climate is much drier
& none of the recent rains at Tuxtla have
reached here. This is not for the fact that
this belt from here to the coast is so low that
much of the ground is constantly damp & is over-
flooded in summer season, this area would belong
to the arid tropical belt. As it is the higher
ground is dry & potatoes of the arid tropical in

many of its vegetable & animal
productions. The people are already coming
here to pay devotions to the holy image &
every day sees ~~devotions~~ ^{processions} in white shirt & trousers
among the men, with white skirt & a long
loose chemise-like garment, with flowing
sleeves, often richly embroidered
wool of the women. These are the cos-
tumes from Anattan near Cordoba mainly.
The Indians usually bring a bunch of flowers that
~~have~~ frequently have been dried & brought a
long distance. These were heaped about the base
of a large stone cross in front of the church.
They then enter the church, after kneeling & crossing
themselves at the cross, & kneel close to the door
lighting each one a wax taper. After praying they
advance to the altar on their knees halting 14 times
to represent the 14 stations of the cross & the lighted
taper is then put in ^{one of} the sockets arranged for them at
foot of altar. This ends the devotion unless for some
cause the pilgrim remains on his knees for some time.
During the time of this pilgrimage drunkenness
& gambling & ~~other~~ forms of amusement are
everywhere in the town. Three days are put in as the
special time devoted to this image with the
flourishing vices that attend these exhibitions
of piety. The town is supplied with water from
the river.

April 19th Returned to Cha-
catanguis. By wagon & took the steamer
down the river to Ilaotalpan where we
arrived about dark.

April 23^d Left Ixcotalpan
on a small, ~~steam~~ propeller launch for
the district about San Andrés Juxtlá.
The route led first up the Río San Juan then
up through various side streams to place called
Alonso Lazaro. This is a ranch at the extreme
head of navigation. The route from Ixcotalpan
here is wholly through low flat country that
is covered with water in the summer rainy season.
The vegetation was like that about Ixcotalpan.
Hiring horses here we arranged to leave early
tomorrow morning.

April 24th
At 4 a.m. we were on horse back
threading our way along the trail toward Juxtlá.
The trees overhanging the road like a dark wall upon each
side leaving a long open lane above through
which the stars were shining brightly. The
temperature was cool & pleasant. At length the
sun came up as we reached the rolling
hills which rise gradually toward the N.E. + E. here
to the low range toward which we are heading.
For some hours we continued up through gradually
rising country until at about 10 a.m. we reached
Santiago Juxtlá at an alt. of about 750 ft. This is
a town of a few thousand people located at
the lower border of the wet belt of the mountains
rising to the N. + E. These mts. form the range of
San Martín. From the outlying foothills to the
summit this range is wholly volcanic. Among the
foothills about Juxtlá are a number of small,

clear streams. Some coffee is raised at this place. After stopping for breakfast here we went on after crossing some higher ridges than those we had encountered we came out at noon on a bold hill top facing the valley in which is San Andres Justita. Ascending the steep slope we crossed a part of the valley & entered upon the cobble paved streets of the town and after some difficulty among irregular streets found the hotel.

In the afternoon I saw the Jefe Politico & found him to be Don Carlos A. Pasquel, a gentleman who speaks English very well & who gave me some useful information regarding the country.

to Catemaco

↓ April 25 - Armed with several letters of introduction from the Jefe at San Andres, I went on today to Catemaco, 6 leagues beyond Justita & 3 beyond San Andres.

The town of San Andres lies at about 1500 ft. alt. & Catemaco at 1100 ft. with some intervening hills a little higher.

The road ran over low ridges & across one or two narrow valleys until we came out at the town of Catemaco strung along a beautiful lake of the same name.

The road crosses several remarkably clear ~~sp~~ creeks. The valleys about San Andres & thence to Catemaco are notable for the production of some of the finest tobacco grown in Mexico. Every where may be seen large thatched drying sheds with the hut-like houses of the laborers near by.

Catemaco

The gentle slopes of these valleys & rolling hills all about are covered with rich volcanic soil, but there are few signs of the prosperity that should exist here. The land is peculiarly adapted to agriculture & the climate healthy, yet I found the owners of the land desirous to sell. Owing to the ready sale of tobacco grown here, land is held at pretty good prices. I was informed that from various causes, such as too much or too little rain &c., the crop was poor 2003 year out of 4 & it was only by the 4th year's crop selling at a good price that the planters keep going. The large prices & great profits of the good seasons keep everyone having valley lands here in this business. The hills are not utilized for tobacco. All the way from Justla the road is bordered in places by belts of second growth woods containing Palo mulato, Rosa Morada, & many other tropical trees. Catemaco is strung for a mile along the shore of the lake near its outlet. Near the lower end of the lake the woods have been cut away & ranches are scattered all about the shore, but heavy forest borders most of the upper end and the slopes extend up rapidly into the high range lying a few miles back. The lake is about 8 by 3 to 4 miles and the greatest known depth is 4 to 5 ft. It is evidently a volcanic lake formed by the uplifting of the lower end of a small valley into which flow numerous fine large springs. Various species of fish common in the river forming the outlet occurs in the lake as well

Numerous Caimans. We rode into the town & I delivered my letter of introduction to the alcaide & with his aid we soon were installed in a large ~~vacant~~ house vacant except for a large colony of bats. Evening had set in before we were settled & the alcaide had ordered a couple of men to be brought out of jail to bring our baggage to the house. He then called one of them to one side & I heard him say to him in an undertone with a fatherly inflection - "now if I leave you here to wait on these gentlemen you will not go away, will you?" "No sir," replied the prisoner, whereupon the alcaide came forward and informed me that he would leave the man to attend to any service I had for him. He then took us out & after going to a couple of houses found some people who were willing to furnish us meals. He then ~~wished us good night and left us to our selves,~~ took us to his own house for supper & we met his wife & 2 attractive looking daughters of 14 & 17. This family is nearly or quite all of Spanish descent & were most unexpectedly frank & informal in their bearing. During the night our servant slept in the hallway saying that he'd rather sleep there than to go back to the jail for the night. Soon after the lights were extinguished a swarm of bats came whirling through the rooms uttering ~~uttering~~ squeaking cries & making it impossible to sleep. The next morning I found a considerable number of fruit eating bats hanging from the

Lead to base

wooden rafters. Many of them were females, each of the latter having a young one about one third grown clinging to her breast crosswise. So far as I have seen, bats have but a single young at a time & the female carries it about with her until it is half grown or more. Although the flight of the ♀ is rather heavy when the young get to be large, it is surprising to see how active they are with a young one weighing about a third as much as the parent. In addition to these fruit eaters were a number of bats of the genus Molossus, three lived in crevices under the tiles & at intervals the males uttered a curious series of chattering & squeaking notes that had considerable variation & undoubtedly formed a song. These notes were usually heard at night or in morning dawn. In addition they had a curious ^{low} chattering note & low squeaky notes uttered in a conversational tone which arose to ^{sharp} querulous cries of complaint as they shuffled about & ^{and} intermingled with another.

By the use of castnets ^{and} many fish are taken from the lake here. In the wet season tobacco is grown & in the dry season the people do little but hunt, fish, & odd jobs. Several factories of cigars & cigar rollers exist near San Andrés. Several small craters exist near Patumaco, one containing a very deep lake called the Laguna Encantada. Over this latter was seen a pair of Harpy Eagles during our stay here. A good soda spring exists on the border of the lake a few miles above the town. Owing to the sluggish drainage of the lake its water is warm & of a brownish color although the tributary springs are of crystalline clearness.

Read
of lake

Many canoes of various sizes are in use on the lake, - the larger ones having sail & oars, the others paddles. They are similar to the canoes on the San Juan & about Chalcatopan. After several days a hunting party was organized and I went with them across the lake.

The wooded mountains coming down on ~~about~~ $\frac{2}{3}$ ds of the lake shore then rising back to summits 6000-8000 ft. give the surroundings much the same picturesque air of Lake Patcuaro. Several rocky islets are found about the shores of the lake & are usually occupied by herons, blackbirds, &c. as nesting places.

Leaving Cuernavaca at 4 am with a large canoe containing 10 men & a half dozen dogs of pretty good breed since they are direct descendants of hounds imported from the U.S. at considerable expense. (There is a considerable number of these dogs kept for deer hunting in this district & a pack of 15 or 20 can be readily gathered for a large hunt. These dogs are good only for deer, however, & curs are used for peccaries, tigers, & similar game. Other common dogs are trained to hunt Coelogenys poea & Dasyprocta mexicana - these two species living on dry wooded hill sides all about this locality.) For an hour the men pulled steadily across the lake & then the day began to dawn gradually & the hills came out one by one & just at sunrise we came to the neighborhood of the opposite shore. On a rocky islet were a dozen or so snowy herons feeding at the water's edge. When our canoe was a hundred yards away they flew up & away in wild alarm & my companions said that they were very

she now from the fact that a year ago a
Belgian hunter had been here & killed many of them.
They nest on a rocky island partly covered with trees & bushes
on this shore. A little further in we caught sight of
a Caiman lying on a rock at the water's edge.
We were about 80 yds. away & a shot from my
rifle through the spine at the fore-shoulder disabled
it so that it could not move. When we drew
close to it in the canoe its head was still fully
alive & made several efforts to throw itself
from the rock. At the same time any object
presented to the jaws was snapped at viciously.
Throwing a noose over the head & jaws, the
animal (about 9 ft. long) was dragged through the
water to our landing & hauled up on shore
when it was left with the rope still on it. An
hour later when one of the men returned to the
boat it had disappeared, rope & all.

The trip across the smooth surface of the
lake in early dawn was especially pleasant
as the moist air had a balmy temperature that
was very agreeable - we left the canoe & went
up to the house of the ranchman living here to whom
I brought letters. He welcomed us cordially on
the strength of these & insisted on our having
coffee with him. He has a ranch here with
from 100-200 cattle & has made a business
of sending milk across to Catenaco daily.
The land hereabouts is very fertile ^{and} where it has not
been cleared a heavy forest exists down to
the shore. After our coffee several of us took sta-
tions in a pasture near the edge of the forest just
above the house & the dogs were put out into the
woods. For about an hour they followed a trail

wooded

Back of the slope in front of us finally a doe came down through the bushes & began to trot slyly across the patch among the scattered brush. She came within about 80 yds. of my stand & I shot her with my rifle. This, combined with my shot at the caribou seemed to convince my companions that I was a remarkable shot, as they said they always killed their game with buckshot. The rest of the day was put in trying to get more deer, without success.

The next morning we changed to another ranch on the shore at the head of the lake. This place had been planted to coffee a number of years ago but is now in a neglected & ruinous condition. Coffee growing here under the shade of laurel trees is slender & tall with gray branches & no flowers or buds, while that growing where the sun can get at it appears thickly & has a good supply of buds. Near this ranch a ~~fox~~ short time since a dog tried a jaguar & kept it up the tree nearly all day by persistent barking. In the eve. the tiger sprang down & killed & ate the dog & left. This occurred near enough the ranch when several men were living so that they heard the barking of the dog & knew that he had a tiger tried, as a boy had seen it in the morning but none of them had sufficient courage to take a gun & kill it.

As a contrast between the style of living in this country & our own I will cite the ranch where we were yesterday. The owner has some thousands of acres of land, at least 200 head of cattle & horses, besides some other property.

His home on the ranch is a mud daubed hut
with a thatched roof ^{and} dirt floor. A couple
of rude tables, 3 or 4 rude chairs & tools,
a rough sleeping bunk & a scanty stock of
dishes with no knives & forks & but few spoons
make up the household furniture. The
entire place has the appearance of squalid
poverty with chickens & dogs overrunning
everything. In the evening before ^{retiring} all of
the chickens & a number of miserable ducks
were herded into the main room where they
were kept regularly at night to keep
them from tiger cats & other animals.
This ranch is typical of thousands of others through-
out Central & Southern Mexico, the owners of which
have sufficient property to live comfortably but
lack energy & desire to lift themselves above
the merest necessities of life. In such
surroundings they rear their children, & one
generation succeeds another living &
dying in brutal ignorance & indifference
to all but the animal promptings & a little
formal religion that has the character
of fetishism. At this at our new place
we secured another deer & then they
wasted the rest of the day in vain search for
others. I found several Sciurus arizonicus
among the trees in the coffee plantation &
secured them. In the eve. ^{ning} we rowed out on the
lake & sailed away to Calumaco again leaving
the mt. summits behind us covered with
wildly flying cloud masses that came
whirling over the ridge & down toward the

lake in angry masses. The sun set & the sky filled with a haze that made a mysteriously somber ~~light~~ twilight as though nature was pausing for some great convulsion - As darkness came on the white caps ran about us & the lights at Catehuaco glimmered invitingly out of the blackness.

Catehuaco, Cont. April 30 - May 5th 1894

Continued collecting here & secured

specimens of Amecate, Callogenys, Dasyprocta, Gallinula barbosana, Syntherisma, & other commoner species. The Howling monkey, Tajanus bairdi and Southern Peccary are all reported as occurring here, & evidently with good cause. The hunters also describe two well distinguished species of jaguars, - the tiger real & a larger tiger serrano. Nearly at times Brown Pelicans & Man-o-war birds come sailing out over the lake from the coast. A great stretch of virgin forest runs from near the lake back to the summit of the high ridge of mts. lying bet. the head of lake & Coatzoacoalebs. This is the highest part of the mts. along the coast north of the Isthmus of Teh. The nicode noche (Cyclotus didactylus) is also reported to occur in the forests from Acayucan to the Vol. of Juxta. About town here the Guisealus macrourus is semi-domesticated & flies in & out of the houses

after food & makes regular raids upon
the table for scraps after meals.

Of San Andres, (Juxtla)

On May 6th we returned to San Andres
Juxtla. Then I called on the Jefe Politico
again & was surprised to learn that on the
strength of my having expressed a desire to go to the
summit of the Vol. of Juxtla he had ordered out
all the people living near the volcano & some
from about San Andres to the number of nearly 40
and they were now engaged in cutting a road
through the forest to the summit. This being
under way for my benefit I had nothing to
do but wait until the 10th when the road was
reported finished and I prepared for the trip.

Of Volcano de Juxtla

May 11th Trip to Vol. of Juxtla, locally
known as San Martin. In the morning of the
11th the Jefe had ready for me 18 men to serve as
guides, packers & cook. Four of the men carried
each 10 gallons of water in lead oil cases
& the others had the provisions, bedding, tents
&c. They set out on foot an hour or more
ahead & then with the guides I went on to join the
party on horse back. To the N.E. of San Andres
lies the mt. & the road lay most of the way in
a nearly direct line for it. Leaving the town
we ascended the steep slope bordering the valley
on the N. side here to about an alt. of 2200 ft.
The slope then became much gentler & we
had soon left behind the cultivated land
& entered a fine stretch of virgin forest.

Through this we continued for several miles until we came out onto a long, narrow, grassy prairie which lies between 3300 & 3500 ft. close to the base of the volcano. Following this for a mile or two we swung sharply to the right & entered the forest again on a ~~the~~ trail which led us up to the top of a ridge extending southeast from the volcano. We camped on the extreme top of this ridge at an altitude of 4400 ft. The vegetation of this ridge differs from that ~~near~~ of the forest below & shows signs of being subjected to a much greater rainfall. The trees become stunted & slender near the top of the ridge & are everywhere hung with moss, giving the woods a drabby appearance in the misty fog that settled down as we reached this point. It is about 9 miles from here to San Andres and at this point where we camped the road cut to the summit ~~but~~ began. At once after our arrival the men put up the large shelter tent for me and then built a thatched shelter of palm leaves opposite for the Selvos. They were a good natured jolly crowd, laughing & evidently enjoying themselves. Before night came on ~~we~~ I went out in the woods & looked about to see what birds could be found. Turdus grayi & Myadestes unicolor were common & singing everywhere despite the cold drizzle. Beyond these birds, scarcely any feathered creatures were found ^{found} & no traces of mammals except signs of

✓ Geomys hispidus, a Sitomys & a Sorex.
For these animals, trap traps were set
or many of the last two taken during the
night. The slender, bamboo-like palm
from which the men made their shelter
is abundant all through the forest here
from 1200 to 4600 ft. Soon after we
made camp two of the water carriers were
sent back to town to bring up another load
of water tomorrow & join us. Soon after dark
we turned in, the men talking continually
talking about tigers (Jaguar) & the necessity
of keeping a fire going to keep them
away. About 9 P.M. a loud rushing sound
came sweeping across the forest,
we were suddenly enveloped in a
terrific rain storm that lasted nearly all
night. A high, cold wind accompanied the
rain & swept across the ridge on which we
were pitched with disagreeable force.
Water brat in under our shelter & flooded
the ground so that the men were soon on foot.
The fire was extinguished & the men put in the
rest of the night miserably -

May - 12th The day broke with rain
still falling & the men were evidently tired of their
trip. Several of them made remarks about
the impossibility of going on & one asked me if
I would still go to the net. I replied that we would
certainly go on & then spent an hour or so scanning
the sky. To my great pleasure, between 7 & 8 the
rain ceased & the clouds began to break away.
Camp was broken at once & I started

on foot up the road cut through the woods
for the volcano followed by the entire party.
(I had sent our horses back to San Andres last
night) The trail had been cut along the top of
the ridge leading to the Vol. & swung up &
down across several steep walled Cañons
that separated hills scattered along the ridge.
In this way we wound along through the dip-
ping forest until we finally came to the
main mountain up the steep slope of which
we advanced slowly & by zig-zag courses.
At about 5000 ft. alt. the vegetation became
even more stunted than at 4500 ft. &
massive lichens grow everywhere while
the bushes & scrubby trees made dense thickets.
From 5000 ft. up the main vegetation is in
the form of bushes among which are
great patches of the Arroyo

whose winter green-like odor
filled the air. Great patches of orchids
growing on the ground imbedded in masses
of ground pine were passed over & in
many places deep spongy mosses a
foot or more deep carpeted all the ground
among the close growing low trees & bushes.
Finally we came out on the summit &
could look down into the crater. There are
two of these one of which, the later one, lying on
the Southwest side is the most perfect &
has cut off a portion of the older crater.
The southern & southwest walls are much
the highest & from the highest point of the mt.
5650 ft. on S.W. side. On these sides are

Some cliffs, on other sides the craters
are of easy access down easy slopes
& the walls have a rounded top.
The sides & tops of crater walls are over-
grown with grass, bushes & small trees
& the bottoms are rather open & covered
with grass. The most recent crater is
about 600 by 500 yds. in size & must
be 700 or 800 ft. deep from the top of
highest point on border. The last two
eruptions of this volcano were within
historical time - the first in 1664 and
the last March 2, 1893. The entire country
to the south & southwest of this vol. for 6 or 8
miles in a straight line is covered
with layers of volcanic sand of unknown
depth. The vegetation on the sides of the
volcano grows in this sand & has made
only 1 to 2 or 3 inches of vegetable mould
during the past century. In many places
the massy & orchidaceous growth may
be stripped off in large flakes & would
jut across leaving the unmixed sand of
the last eruption exposed. All about the
slopes of the vol. & adjacent ridges
nothing but sand can be seen but
at the base of the main slopes about the
grassy llanos already mentioned
are some broken lava beds.
These found on the sloping plain from base
of the volcano toward San Andrés contain
numbers of extra ordinarily fine trees that

must have withstood the ashy storm
of the last eruption. The largest of these
trees are wild figs. One of these was seen
that would measure about 15 ft. in diam.
10 ft. above ground & about 75 ft. or more
to the first branches. These large trees
extend up to about ~~4200~~ 4300 ft. on base
of Volcans. Owing to the grovelly character
of the soil no surface water is found
anywhere about the Vol. & adjacent slopes
It is wholly extinct. From the summit
to the sea shown in a straight line it is
about 6 or 8 miles - Owing to the situation
of this mt. its ridges close to the sea in the
track of all nor'e winds from the gulf it
has an excessively damp climate & is
cloudy covered with clouds & subjected to
many heavy storms throughout the dry
season. The climate of the mt. above 4500
ft. is very cool as is evidenced by the
abundance of mosses, lichens, stunted
vegetation & the presence above 5000 ft.
of several species of small plants not
found elsewhere. No pines or other conif-
erous trees are found on this mt. although
the climate is suitable for them. The vegetation
is mainly derived from below - The men with
me said that there are many wild cattle
ranging in the forest on the seaward face of the
Vol. & that in summer they are often found grazing in
the Crater. The rolling hills bet. the Vol. & coast
are heavily forested & abound in game according
to my men.

At the City of Orizaba & other places I
was told that the Vol. of San Andres often emitted
great noises but could learn nothing of this
in its immediate vicinity. Earthquake tremors
are felt several times a year in this district
& it is quite within the bounds of possibility that
this Vol. may burst out with another eruption
some time. Having taken specimens of the
plants found on the summit I turned about
& decided to descend the mt. directly down
the slope instead of along the ridge up which
we came. Two men with machetes took the
lead cutting the new trail down the very steep
mt. side of the S. slope, going directly toward
the ~~low~~ prairies or llanos at the base -
My two guides here took it into their heads to
camp on the summit of the ridge again in place
of going down the slope & only by my insistence
did they finally start down, both of them in very
bad humor. We descended to 4400 ft.
& then camped on the first spot we had found
with sufficiently gentle incline to enable us
to make camp. The forest was tall & dense here
with an abundance of the cane-like palms.
The men soon had the camp made but none
too soon as it began to rain again & contin-
ued nearly all night. The men profited by
last night's experience made themselves a
good hut of palm leaves. Both nights they
constructed me a cot of poles that was very useful
with the ground running with water.
During the night ^{some of} my men got up & circled
about camp with a blazing fire-brand over their
heads to drive away a jaguar which they claimed
was moving about us.

With persistent inquiries I could only learn of one case of a jaguar having injured any one in this district - this was said to have been a man who camped alone in the forest without a fire & I am inclined to consider rather apocryphal. They do kill young cattle & horses. Despite their general rambunctiousness nearly everyone among the natives here holds them in much dread. A negro cook I had was very much worried over the "tiger" at this camp.

May 13th The rain ^{nearly} ceased about 7 a.m. & we broke camp & started down through the forest again en route for the llano. After cutting our way for some hours we finally came out on the grassy plain at about noon - There we found camped a party of hunters from San Andrés who had barbecued a deer in ~~the~~ banana leaves the night before. On their invitation we stopped & had dinner with them & then went on down the return trail and reached San Andrés at about 4 P.M. On going to the hotel I found that the room I formerly occupied in which some of my things were stored had an American in it who proved to be Mr. Bullis, American Vice Consul in Vera Cruz. The landlady put it in it also and I proceeded to clear off a large table & to spread in it the miscellaneous gatherings of the trip, such as snakes, frogs, lizards, mice, birds & shells preparatory to labelling them. Soon after our fellow lodger came in & after giving a surprised & horrified glance at the table turned & went immediately to the landlady & got transferred to another room.

May 1894

On the 14th I sent my assistant down to Juxta 7 miles below to do a couple of nights trapping. He went down & after setting traps along a cliff he shot a squirrel & went on to the town to find a hotel. When he came near the town he was met by 3 police men each carrying an old musket, in one hand, at full cock. They asked for his gun & told him he was wanted at the jail. He gave up his gun & went with them & was put in jail where he was kept for several hours. While in with the other prisoners he walked about & showed some uneasiness at which his fellow prisoners, natives, tried to comfort him by saying - "don't feel badly, we'll all get out tomorrow." As soon as put in he asked to be allowed to telegraph me & they said he could but then kept putting him off until the office was shut. ~~Finally~~ When first taken to jail he had told who he was & what doing. Finally they took him, late in eve., to the Alcalde & the latter had him give an account of himself & then said that a local law exists here that no one is permitted to hunt within half a league of the town without a license & the latter are only given to responsible people. This being & no one is permitted to go on another's land without permission. "However" he added "you are a stranger here & we are not responsible so I will not hold you responsible, your own liberty."

Then he said that the land where my
ass't hunted belonged to him & that
he could hunt there as much as he
liked. The reason for this strictness
being that a few years since two factions
of the towns people were rather unfriendly
over land matters & there were five fatal
hunting "accidents" by which five men
of one side were shot while in company with
men of the opposite side & all claimed
to be accidents while hunting. It being
too late to find a hotel when liberated
my assistant was invited to share the quarters
of the capt. of the police over the jail which
he did. The next day he hunted on the land
where he had been arrested the night
before & found the men & guards very friendly.
During the day an alarm was given that
some one had been seen on the land &
the policeman cocked his musket & when
carrying it by the middle in his right hand
he proceeded to hunt for the trespassers.
Finally, not finding them, he uncocked the
gun & began his watch again. He used
charges of irregularly shaped slugs
cut from lead & standing 50 yds from
a large tree fired at it to show how he could
"bathe it in lead" as he expressed it - not a
slug touched the tree.

May 15th Today I left

Sent off my baggage by pack train

for Alvaro Lazo & on the 16th at
Passo left myself for Alvaro
Lazo picking up my assistant
on the way. We arrived at the
place at 11 a.m. just as the little
steamer arrived & at 6 P.M. were
again back at Ixcotalpan.

May 17th - 29th

Ixcotalpan, Vera Cruz
The water supply for the town is brought in
large red jars in canoes from about
5 miles up the Rio San Juan, the head of
brackishness from the effect of the
tide. The tide is regular for a still greater
distance up the Cosamaloapan.
No mail bringing here for me I found myself
out of funds and put in my time getting
reports up to date. Finally I learned that
my mail had been sent to Paso San Juan
the first of May. By telegram from that place
I learned that nothing had been rec'd there.
During my waiting here I did some
hunting & particularly learned some-
thing of the habits of the curious rail-like
Montezuma's chicken or pó-poo-cal.
At this place I have met a number of
Americans searching for coffee

land several have been over
considerable of the country & are now
preparing to buy near Pass San Juan
at an altitude of from 500-700 ft. above
sea level. There at a place called
Queva Vista is located Dr. Cochrill
a son of Senator Cochrill of Missouri.
A large number of Americans have come
to Mexico within the past few months
looking for coffee-lands but only a small
percentage make actual purchases & start
to cultivating the coffee.

On May 30th Took steamer for Alvarado
& thence proceeded to Vera Cruz.
The U.S. Consul there told me that
about 10 or 12 people a week are dying
here now of yellow fever mostly among
people from the other parts of the
country or foreigners. He says that the
nation suffers but little from it.

✓ May 31st. At 10 mi. today we took the
train for Orizaba - On the way up I
again paid especial attention to the
great number of drift boulders lying
scattered over the plain between 500 & 1000 ft.

along the line of the T.P.R. with them
is a bed of conglomerated drift, gravel
&c below, & I am much inclined to
believe that the entire deposit is
of glacial origin. — J.B. Tlaxcala

June 2^d Left Orizaba & proceeded
to the city of Tlaxcala where we remained
overnight. Was much disappointed to
find this town to be small and to con-
tain very little of interest. A
large plaza shaded with fine
trees (*Ficus* & *landierii*) is the most
attractive feature. On the old govt
building or palace door an inscription dated early
in the century praising the faith & allegiance to
Spain of the worthy citizens of this town & on the
other side of the portal is an inscription praising
the people's devotion to the Constitution. —
J.B. Puebla

June 3^d & 4th we put in in the City of Puebla
in order to ship my baggage to Oaxaca. —

June 5th City of Oaxaca — Oaxaca

The table land region continues from Puebla
nearly to the limit of the state beyond Tehuacan. —
The R.R. Mexicano del Sur continues to descend
until it reaches an alt. less than 2000 ft.

above the level of the sea & then all through this ^{low} area it is in an extremely arid belt belonging to the land Tropical - then the road climbs up to over 6000 ft at Las Sedas & proceeds across a plain to the city of Oaxaca at a little over 5000 ft.

June 6th We reached the city of Oaxaca ~~late~~ last evening and as the train entered the station a crowd of about 200 people was seen on the platform, a couple of bands began to play and some fire works were exploded in the street. On inquiry I learned that this was in honor of Gen. Martin Gonzalez who is candidate for Gov. of the state at the coming election. The crowd was a decidedly small one mainly of young men & boys & certainly made no very imposing welcome. Oaxaca city is in a dry valley with a range of mts. rising to over 10000 ft. just to the north of it. On all sides toward the horizon rise hills & mts. high enough to be covered with pine timber. The climate is evidently down & warm (dry). The city is fair sized with a very good stone palace, or gov't building. The town has straight streets, mainly one story houses with barred windows, & about 30000 inhabitants. It has several pretty parks or plazas shaded with the common ash of the table land (*F. pyramidalis*). Various ornamental shrubs, flowers & some statuary deck these parks & render the city more attractive than it would be otherwise. The city was reached by railroad about a year ago & has since put up a good corrugated iron market.

Itales enjoys electric lights & street cars, from the plaza to the depot. These two latter institutions can be found everywhere in Mexico in towns where there is no apparent warrant for them, to judge by the business carried on. The valley about the city is full of scattered Zapotec Indian villages. The women from these villages within from 3-10 miles come in every day with supplies of tortillas which they sell & thus supply the entire demand. As in most Mexican cities the main business is in the hands of Spaniards, French or Germans - the native Mexicans being found dealing only in a small way. The owners of property nearly doubled on their rents & values on the arrival of the R.R. but I heard one old merchant complain that the coming of the road had hurt the city as many people now went direct to Puebla & ~~got~~ supplies in place of buying here. The upper classes here usually dress in civilized fashions though the Charro costume is common. Five tenths of the people, however, are Indians dressing in a loose shirt-like blouse that hangs free at the bottom & a pair of ~~drawers~~ wide loose drawers made of the same unbleached cord drilling fastened at the waist under the blouse. Broad rimmed sugar loaf hats of felt or straw, often with a heavy cord which often costs more by several times than the rest of the costume. The drawers are held in place by a ^{double} leather girdle with sews as a money belt & must be removed in order that the wearer may take out any money.

The feet may be covered with rudely made shoes, a pair of sandals called Cacle which is much like a coarse shoe with heel & upper over front half of foot gone. It is a cross between a sandal & a shoe & I have only seen it used here. Sandals are also used. The women use the common blue & black reboos thrown over the shoulders when it is cool but worn like a kind of turban on the head with flowing ends down the back during the heat of the day. A chemise with very short sleeves & very low neck. Over this is worn a skirt of coarse hand woven wollen cloth wide enough to reach between knee & ankle. This skirt is wrapped about the waist so that the fullness comes in front & is held in place by a cloth sash. This skirt is usually merely a straight piece of cloth. On the streets I saw a woman from Tehuantepec with a peculiar head-dress called hucpil. It is made of light gauzy muslin in the form of a sack with ornamental sleeves too small to admit the arms; & has abundant lace trimmings. The woman either throws over her head the part answering to the lower end of the waist letting the sleeves hang down her back or envelopes her face with what would be the neck it presents a very picturesque appearance. Just north of the city around the Plaza de Armas are large portales supporting a second story to the stores which back them. Among the pillars are many tables with benches where open air

restaurants or Cafes are run for the poor people - under the shade of the trees near by along the walk beyond the potatoes are a number of fruit stands - where various tropical & subtropical fruits are sold - just after dark every evening these small traders light up with little lanterns & their swarthy customers gather about in crowds chatting in several Indian tongues as well as Spanish & a most interesting & picturesque scene is presented in the dim light out of which show faces & objects with the black background of the street beyond.

~~June 24th~~

June 24th Oaxaca -

Saw a fine Archaeological Collection with perfect date today. It belongs to a Mr. Sologuren who has been securing the pieces in this region for the past twelve years & has some remarkably fine things. Here as in other parts of southern Mexico I am told that a majority of the common people are living together without the form of marriage. The priests are opposed to civil marriage through ignorance & religious prejudice many local officials evade the performance of marriages as often as possible. Mr. L. C. Smith tells me that in many instances when he has tried to get a couple of Indians to get married who have lived together for years they

object by saying they were ashamed to
be married. The official papers of Oax-
aca & City of Mexico as well as numerous large
posters on town walls in ~~town~~ town
gave a glowing eulogy of Gen. Martin Gonzalez
& of his enthusiastic reception by the people of
Oaxaca. The rabble-like crowd of from 100-200 people
who met him at the same train which I arrived on
certainly was no evidence of great popularity.

The conservatives here speak very slightly of the sorry
show & the students of the state college come out in
a card saying that while not desiring to be consid-
ered in opposition, necessarily, yet they wished
to have it understood that the rather disputable
gathering at the depot on the night of the
arrival of Gen. Gonzalez contained none of the repre-
sentative students of the college. This was
rather unfortunate for the official organs since they all
claimed that the students had welcomed him with
great effusion. Soon after my arrival here I went to
see the Governor now in office.

He read my letter of recommendation from
the Secretary of State and I told him that
I wished a letter to the local officials in
the state so that I could get reliable men through
them. To this he at once made reply that I must
pay for any men I got & after I finally satis-
fied him that ~~he~~ I had no intention of asking
for any free service he told me to come the next
day for my letter. I then told him that there was
published by the state a pamphlet containing a list of
plants & animals of the state that I desired to get. He
claimed to know nothing of this but said he would
make inquiries & let me have one with my letter if such
a publication existed. ~~That~~ The next day when I
called for my letter I was told by the clerk who gave

representative

Re my letter that such a list was published by the state & that I could buy a copy in the office of the state Treasurer! This is the first instance since I came to Mex. as a rep. of another govt. that the state officials have been so little desirous of forwarding my work that they grant letters of ordinary recommendation only under a kind of halting protest & they wish me to pay for a small official publication. The governor here did not appear to have the slightest desire to forward my work but merely to do just what was unavoidable. I was reminded very much of the kind of reception I had in Morelos although even there they expressed great willingness to give me any publications of the state. I presume that little else can be expected from officials in out of the way states of this country, but I have had such civil treatment & apparent willingness to assist me in other states that it is rather disagreeable to meet the contrary.

I have learned some curious details of election methods here which are rather interesting as showing how they are conducted. Before the Presidential election each little town in this state chooses its electors who then go to the capital of the state & there cast their ballots for President. One of the electors chosen in one of the towns about a day's ride from Oaxaca was visited by the Jefe Politico just before time to go & told that it was best for him to claim that he was unable to go to the meeting on account of sickness. This man was known to be in opposition to the present administration & he knew enough to take the hint & stayed at home. In this way the elections are made practically unanimous. In the state of Hidalgo this condition of affairs has been going on for years & the family of the present gov. has been in power without a break. Despite the fact that there are many people in the state bitterly opposed to their rule yet every succeeding election brings out the

report that the present gov. has been re-elected
"unanimously". In voting, each man is
required to place his name on his ballots.
That there is no chance for a voter to escape having
his way of voting known. The result is that few
people of the opposition like to put themselves on record.
The last of June, when leaving the city of Oaxaca, I was
surprised to see a few posters on the walls of houses in
out of the way corners at the edge of town announcing
some one for governor in opposition of the official
Candidate, Gen. Gonzalez. The bills read that the
opposition candidate was proposed by the
"Workmen's Club" of Oaxaca.

~~#~~ 10 miles today)

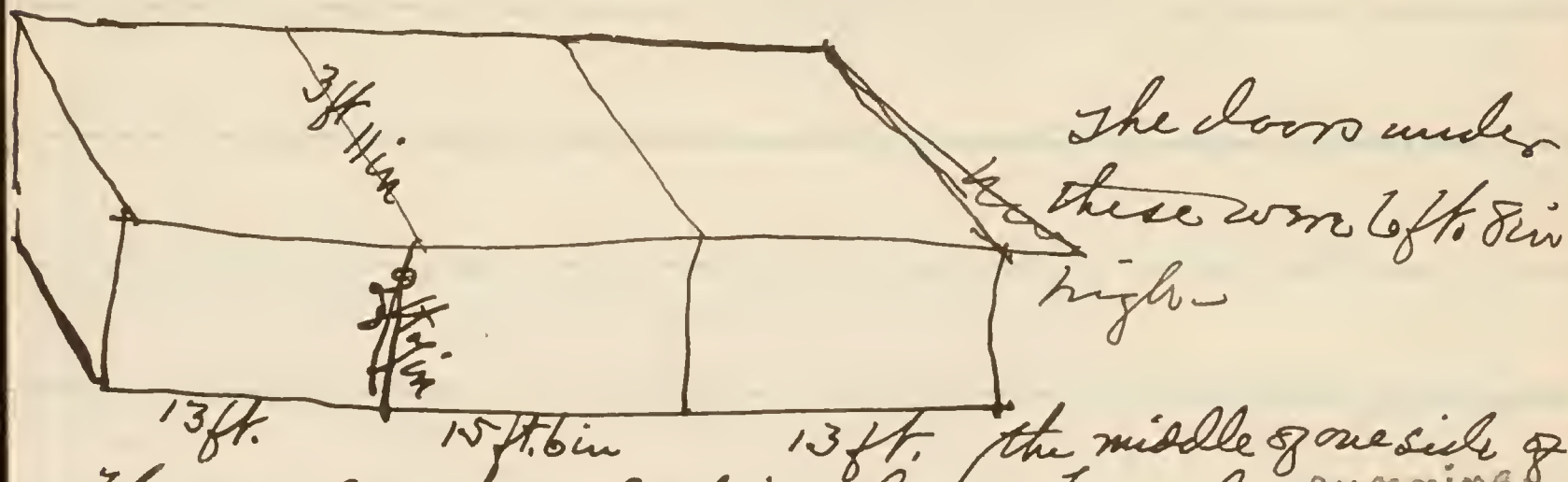
June 24th Today I managed to get
started for a trip to mt. Tempoaltepec. I have
been trying for over a week to get a man to go
along without success. Three different men came,
two of which saw me first & agreed to return, but failed to
come. Another stayed 3 or 4 days & then left. The
one I found yesterday he stayed but wished to take
along his wife - or mistress. I agreed to let him do this
as both of them are to walk. The mule I have for pack
animal proved to be unaccustomed to packing
and the bulky, heavy load I took was very awkward
to manage - Every little while the load had to
be repacked so that it took us all day to get the
first ten miles on our road to the village of
_____ where we were all very glad
to arrive. The woman with my man proved to
be very much more active & useful than did
the man himself. We travelled east from Oaxaca
about 6 miles out passed El Tule where stands
the huge Cyprastere of well known size -

alt. 5450

June 28th Mitla, Oaxaca

Today our progress was much better than yesterday's and we made about 20 miles up the valley to the village of Mitla where are located the famous ruins. This is said to have been the residence of the High Priest of the Zapotecs in the time of the arrival of Cortez in Mexico. The king, or political chief lived far to the S.W. beyond the present city of Oaxaca. The present village of Mitla is an insignificant collection of wattle huts & small adobe houses. The ruins show a high degree of designing skill. On the ~~west~~ ^{west} side of the ruins is a mound-like elevation made of adobe bricks which was flat on top & approached by a flight of ~~old dressed stone steps~~ ^{old dressed stone steps}. ~~The house to the~~ ^{On the east side} (from side of main ruin) a Catholic ~~church~~ chapel is on the top of this mound now. ~~On the~~ The largest & best preserved house is now roofless as are all the others. The buildings are all one story & were built of a mixture of ~~adobe mud~~ ^{rough stones} & ~~rough stones~~ as the main part of the heavy walls but were faced outside with very accurately dressed stone in various grotesque. These patterns are mainly worked out by the use of small stones worked down to almost brick-like form.

but in other places the pattern is cut in the face of massive stones. Each of the main buildings is entered by three broad low doorways side by side in middle of building & the doors are capped by massive, accurately squared & finished stones. Those over the 3 doors of the best preserved building measure as follows:



These doors led into a hall running E. & W. a little over 110 ft. long down the center of which runs a series of smooth round pillars, each of a single stone, & measure 11 ft. above the ground, & from 9 ft. 1 to 9 ft. 3 in. in circumference about 5 ft. from the ground. At the ground they measure 3 or 4 in. more & this taper is carried nearly to the top. The last few inches is rounded in much more rapidly. In center of this building is a small court surrounded by small rooms & the court & rooms have figured walls in same patterns as on exterior walls. The rooms of all these buildings were without any windows or other openings through the walls. All doors were as broad with flat caps.

I asked my Indian servant what he thought these ruins were made for & he said they were the chapel of some saint, but he did not know which one.

June 29th ^{Jf} Remained in Tutta

June 30th ^{Jf} San Miguel Albaradas

— 16 miles — 6500 ft. alt.

Finding the load too much for my single pack animal I hired another one to help us along today. Our road was an extremely rough one leading several miles up a rocky cañon just above Tutta & then crossing several high ridges with very rough trails leading up rough slopes. The mule distinguished itself by falling backward off the trail three or four times & gave us a great deal of work in addition to her skinning work in several places. The vegetation of the dry hills over which we passed is that of the ^{dry} Lower Sonoran region. A mangrove ^{is} a many agaves, cacti, yuccas, an "Ocotilla" like that growing on plains of S. Arizona, acacias & many species I had not seen before. This continued up to 6500 ft. Then there was evidence of greater rainfall & several species of Oaks (3) came in & predominated in the form of scrubby trees up to about 4000 ft. which was as high as our road took us.

The man I hired in Oaxaca as a packer turns out to be of no use as he knows nothing of the business he has undertaken. The road continued rough & rocky until just before nightfall when we reached the little village named above. The steep hillside on which San Miguel is perched is cultivated in small corn patches & as we passed along I was amused by being hailed by the Indians working in the fields calling out "Buenos tardes, adonde se va?" In the village of straggling adobe houses, ~~some~~ thatched with yucca leaves peeled off the trunk in bunches by cutting the bark in squares. The houses were set irregularly about on the hillside & connected by irregular trails with numerous small trees & bushes forming ^{forming} hedges along their sides. About many of the houses were growing a few peach trees yielding unusually good fruit. We were piloted to one of the houses in the middle of the town evidently where the boys we met seemed to think that they had best accommodations for us. Here we re-saddled & stood about for an hour or more, the women claiming that the owner of the house was away but would be back soon. Becoming impatient I went for the Presidente of the town & showed him my letter from the governor & told him I wished for some place to put my outfit under shelter as it was likely to rain. The presidente could not read but a young fellow managed to make out the import of the letter & then ensued a long discussion as to the necessity of complying with my request. (This between the Presidente & the one who read the letter.) It then turned out that the unoccupied house belonged to a man who had gone away for several days & whose wife was

stopping next door. I assured them of my desire
to pay for any service & horse room. Finally a reluctant
consent was given us to put our things inside of
the miserable dirt floored hovel and we got installed
at about 9 P.M. & managed to get something to eat.
My worthless Indian servant from Oaxaca
now complained of being very sore from his trouble
with the mule on the road & complained of the road
being bad &c., &c.

RTH / July 1st. San Pedro Miguel Alb.

At 8 A.M. when the man I had hired from
Miller with his burro started home my mule
from Oaxaca deserted me carrying away
various small effects he had pilfered from
the outfit & owing me several dollars
he had secured as advance pay. Although his
disappearance was no great loss owing to
his general inefficiency I was angry at his sneaking
off in the manner he did. - By this I was delayed
here today looking for other men to accompany me.
I made my wishes known to the Presidente & asked
him to find me a man to go along as packer or rothero
to carry part of the outfit. This he promised to do but in-
dented on my paying double price. ~~Later in the morning~~
some eggs were brought me for sale at 4 for 6 cts.
But I had no change. A little later the Presidente
came & told me that I could not buy any more eggs at
that price but must pay at the rate of 3 for 6 cts.
He also informed me that I could get no men to go more
than a single day's journey from this place.
Throughout he acted exactly as if he desired to do as

little as possible for me & to make me pay
to the utmost limit. In the middle of the forenoon
he came about again accompanied by another
indian, both half drunk. They talked & talked
about nothing & the companion of the Presidente told me
that he was the Regidor taking a little walk about
the town with the Presidente, after repeatedly saying
this he ~~seized~~ seized my hand & kissed it effusively
& then asked me if I would not give him 3 cents for
a morning drink. I finally did this to get rid of him but
the relief was merely temporary as the pair were
an intolerable nuisance all day, the Regidor
not satisfied with kissing my hand became so
affectionate that I had to hold him off by main force.
In the afternoon the Presidente came & told me that
I must pay for my men there or they would not go to-
morrow. This I did as he could make me too much
delay if I objected. When he had the money in hand
he exclaimed "how it is arranged" as though
nothing had been done up to that time. He then called
up three men divided the money up among them
& said they would be on hand in the morning.
I hoped they would that I might get away from
this miserable little place. (16 miles)

July 2^d San Pablo Yaganiza
According to plan we found the men on hand in the
morning and soon got under way. The road led down
a long steep slope from the alt. of 6500 ft. to 5000 ft.
at the bottom of the cañon through which flows a small
stream. All the way down the slope is covered
with scrubby oaks of 2 species which I secured
and at 5200 ft. down to 5000 were numerous
Junipers of which I took a spec. Crossing the stream
we climbed the opposite slope through the village
of Santa Catarina where we entered one of the

main trails from Talalay to Oaxaca. This trail led us up a long, rough, broken slope overgrown with scrubby oak & a few madroños & alders to the crest of a high ridge at an alt. of 8000 ft. The slope we had been ascending is rather dry & the vegetation is small. As we reached the summit & descended on the other side a sudden & striking change to a ~~the~~ heavy forest of large oak & madroños with a rank growth of grass & bushes in openings marked the abundant rainfall that occurs this slope facing the N.E. & catches the moisture laden winds from the Gulf. This is a part of the main range between the mts. north of Oaxaca & the group about Zempatlépec. The road now led down long steep slopes past various small Indian fields on the hillside until just at evening we entered the village of San Pablo Yagauiza - another small Zapotecan village like San Miguel. It is located at an altitude of 3900 ft. Many bananas were growing in the yards about the houses. The place is at the mouth of a cañon down which flows a small stream into the deeper cañon below.

There were also plants growing along this ridge in scattered forest among the other trees.

As we rode down the final slope to the village we passed a number of women washing clothes in a small spring stream issuing in a little gulch beside the road. Some of them were naked to the waist & were quite indifferent to our passage. Others were carrying water into town in large black jars slung over the forehead by a band & hanging against the hips behind in a net made

of maguey cord. In the edge of town
we stopped & I had one of my men track
one of the women we saw looking at us from
a doorway where we could find the Presidente.
She replied that the latter had gone away & was not
in town. I then told my men to ask for any
of the officials as any of them would serve my
purpose to provide us a place to stop. After
explaining my wants, the woman who had just denied
the presence of the Presidente announced that she
would go to his house & get him - which she did
in less than five minutes. He came slowly along
& stopped about ten or fifteen steps away as if
afraid to return near. I held out my official
letter to him but he made no motion to come near.
My men explained what I wanted & he finally said
I could stop at the municipal building at the edge of town.
He then led the way & we crossed the village & went up
on a small hill where we found the public building to
be a small adobe house facing a church on
the top of the little knoll. My first inquiries were
for horse feed & some fruit & eggs. The Presidente
went away & came back carrying a load of ^{corn} ~~corn~~ ^{bundles}.
He said there were some eggs & bananas for
sale but did not send anyone with them & my men
had hard work to get the people to sell a few
things although they were themselves Zapotecos.
The Presidente said there were no men I
could get to go with me to Yalalag (about 6 or 7 miles
further). At this I set to work & persuaded my
men who had come from San Miguel to go on to
Yalalag although the Presidente of San Miguel had
positively insisted that they would go no farther
than the present place. The Presidente hung about
for an hour after he had been paid for the corn
feed & finally asked one of my men to ask me to

gave him 3 cents for bringing the food - which I did. He constantly kept some yards away with the distrustful air of some half wild animal. In the evening just as we were going to bed a number of young fellows came & pushed the door open & came into the room evidently curious to see the strangers. They were good natured & some of them talked a little Spanish. Several of them wished to know if we needed men to go on with us announcing their readiness to do so. Coming directly after the Presidente's statement that no men could be obtained here it seemed rather strange. Why these officials here at San Miguel should assume an obstructive policy is difficult to understand.

8 miles

July 3rd At 7 a.m. we left for Yalalay

The road leads along the hillside for a couple of miles & then down a long steep slope to a river lying at an alt. of only 1800 ft. Along the slope by this trying descent ~~the~~ a small town about San Pablo Yaganiza. The climate is arid & tropical. There are some scattered scrubby oaks but most of the vegetation is that of the arid tropical areas. At the river we overtook the Presidente & a number of people from Yaganiza on their way to the market at Yalalay, this being the regular day. At the crossing here we were surprised to see a fine suspension bridge spanning from bank to bank of the stream. It was made of heavy cables formed of strong grape vines lashed into large round ropes. Several of these united below as the foundation of the bridge. On each side about 5 ft.

above and 3 ft. each way from the
Centre other heavy cables extended
parallel to the bottom one with which
they were united by a network of smaller
vines so that the weight was borne equally
by all of the cables. The passageway thus
became a V shaped one. The ends
were fastened to some posts firmly planted
near the bank & to some *Sycamore*
trees growing there. The posts extended much
higher than the bridge & were guyed
to various posts set in the banks forty
back from the river. In order to have
the bridge swing clear of the river it is
hung about 15 or 18 ft. from the ground
at each end & a strong log ladder
leads up to it. It is a very ingenious
structure wholly the work of the Indians
who told me that they obtained the grape
vines from the high mts. back from the
river 10 or 12 miles. To gather the tons of
vines necessary for this work was no
small job while to swing it in place was
much more difficult. From here we
climbed rapidly up the slope to an
altitude of 3800 ft. & entered the large
Zapoteco village of Yalalag. Penetrating
the centre of the town we found a small
plaza with a fountain & a dense crowd
of Zapotecos and Mexican Indians gathered
for market day. I soon found the Presidente
in his office - a dirty, mudwalled, dirt-
floored room with a few benches & a table

of the rudest make. He proved to be
a more intelligent man than those
I had met recently & at once read my
letter & then took me to the adjacent
school room where he permitted me to take
up my quarters as there is now vacation &
the town affords no accommodations to guests
although it contains from 1500 to 2000 people.
Went to the school room we found the mother of the
school teacher living & she agreed to
furnish us with our meals while we were here.
She was a talkative woman (nestio) and said she
was only stopping here with her son for a short
time until she could join her husband in
the town of Ixtlan where he had been appointed
the secretary of the local judge who was her
son-in-law. Her son was living in a
room with her son & his wife & the only furniture
consisted of a couple of ~~fold~~ mats laid
in two corners on which a couple of
cheap blankets marked the sleeping places.
The kitchen outfit was barely sufficient
for the scanty supply necessary for my
assistant & myself. The old woman was a
cheerful person & amused me by her
opinion of the people of the present place
owing to their ignorance. After getting
settled I hastened out into the Plaza
close by and wandered about watching the
picturesque figures of the Indians who
have not had sufficient intercourse with
outsiders to change their primitive habits
& costumes to any extent. The nations of the town
are Japotecos. The women wear white skirts of unbleached
cotton reaching to the ankles. Over this is worn a

wide flowing tunic ^{of same material} falling in straight folds from neck to knees with broad loose sleeves. These women all have the hair dressed in two braids falling behind the ears and interwoven with the hair are numerous long black woolen strings which extend the braids down nearly to the knees. These huge braids of string are twisted about the ends with yarn to keep them in place, the ends in place and then the braids are twisted turbanlike about the head, each braid being passed in & out over the opposite one. The ends are then tucked in behind and the effect is that of a large black turban. The Jalalay men wear the usual costume of a pair of white cotton trousers, shirt, sandals and straw or felt hat. The Mije women could be at once distinguished by their hair having its woolen strings made up of alternate black & red strings also by their dress, shirt & tunic ~~cut~~ cut on same pattern as that of the Jalalay women - being of coarse home-spun cotton cloth with of a black ground color with some narrow ^{ows} dingy white stripes crossing the cloth. About their necks some of these women wore huge ^{masses} necklaces of small beads several pounds in weight. Blue red & black were the favorite colors of the beads. The Mije men are wild looking fellows with broad homespun trousers ^{white} of cotton cloth

rucking between knee & ankle & flapping
about as they walk. A short shirt reaching
but little below the waist, & sandals,
made up most of the costume. Some wore
small crowned hats of leather having wide
straight rims. Others had black felt hats
of the same form.
Like the zapotecos they have slight brads
of straggling chin hair, in many cases.
The marketing was going on with a constant buzzing
of chaffing & gossiping among the people -
Under the shade of a large tree were sellers of
brad called meats cut in small string like bunches
and beside them two or three men with rude axes
were cutting up a freshly killed deer or cutting
off long strips of flesh. Fruits, vegetables, coon,
beans, serapes, rebogos, cotton cloth & prints,
raw cotton, hats, sandals, meaquey fibre cord
& ropes were among the varied articles being sold.
Nothing seemed to have been brought in on
the backs of the people & was sold from hampers
or small mats spread on the ground. The people
doing the buying were mainly women who
went about often in groups of 2 to 3 or 4 &
squatted on their haunches while chaffing
with the sellers constantly referring to one another
& handling over nearly all of the stock every time
before buying a few cents worth of material of any
kind. The town is situated on a steep hill slope which
is terraced to afford a level building spot for
the houses & yards. On asking from the Presidente
the price of a mule for the trip, he showed the
same unaccountable reluctance shown by the two others
I had recently met. He assured me that I could only
hire men here to go on to my next stopping place

I finally got my packer, who came from
San Miguel, to go on with me and the Presidente
brought 2 nice Indians, around in the P.M. say-
ing that they were willing to pack my stuff a day fur-
ther on the way to Yacochi where they were living.
The Presidente then told me that I must pay them
them in order that they would feel under obligation to come
for the things in the morning. I did this & the men
went off promising to be on hand in the morning.
In the eve, my new packer became pretty drunk
in celebration of his new bargain & talked loud
and self importantly. When I was glad when bed time came
so I could get rid of him. The people are suffering
much from smallpox and Croup here now
I am told - several persons dying daily.

July 4th - 94 - Yacochi, 20 miles
The morning we left Yalalag with our Indian
packers. The trail out of town here leads in
a winding course up the hill to the S. E. toward Mt. ~~Yacochi~~
tepe. There are several large well-made trails
leading in swaying grades up or down the
steep slope from Yalalag. On all of these
trails are built little adobe skines of a single
room 6 to 8 ft. square with a good roof & a door.
Inside is a small altar on which ~~are~~ various
small images or pictures grace the back, ~~of~~
& small letters on which flowers are continually
placed. These skines are remarkably numerous
number from two or three to a half dozen along
each trail within a mile or two of town.
As the Indians pass they stop to cross themselves or
place a few flowers on the altar & then go on.
As we followed our carriers out of town we lost sight
of them but were guided on our way by Indian women
in the yards we passed. They all seemed to

Know where we were going & stop judges
if we failed to keep the right road as occurred
several times in the winding lanes that served as
streets. Just out of town we overtook our
men & kept along together the rest of the day. The
road led up up until it 5000 ft. we entered among
a thin small growth of two species of oaks,
Q. grisea var. & another round leaved one both
of which are commonly the ordinary species
along the lower limit of the pines. Scattered pines
descend here on some slopes about 4000
ft. but the regular forest is from 5000
to 7000 ft. It does not amount to much in
today's route but is small & scattered mixed
with oaks. A large part of the hillsides are grown over
with small bushes & herbaceous plants.
After skirting the ridge back of Yalalag for some
miles, we crossed it & began a series of sharp up
and down steep slopes for the rest of the day.
Proceeding into a cañon bottom at 5000 ft. we
at once began the ascent to the opposite crest
at 7000 ft. then down to less than 6000 ft. only
to go up again to 7800 ft. at Yacochi -
Everywhere along the road side trails branched
off to little fields cultivated on slopes
so steep that many places could only ^{be} ~~be~~
cultivated by hand. Mud walled ~~houses~~ ^{huts}
with roofs thatched with grass made the
houses of the people & very few signs
of domestic animals were seen. A few
oxen & dogs with rarely a horse, burro or mule
made up the list of farm animals although
chickens & turkeys are seen at nearly

every ranch. The people came out & gazed at us, surprised, as we went by & a few who could talk a little Spanish wished to know where we were going. At about 6500 ft. the oaks became more dense & the trees larger & continued to increase as we ascended above this though the pines ceased at about 7000 ft. and were replaced by oaks a thing that has never occurred in our previous experience in this country. Many species of plants new to us were also noted. At 4 P.M. we climbed up a long & excessively steep slope, entered the struggling mine village of Yacochi. It is perched on a high projecting shoulder of a ridge leading out on the western side of Mt. Zempoaltepec at an alt. of 7800 ft. The main peak is separated from the hill on which the village stands by a deep gorge-like cañon. The hill of the village & the peak being at the two points of a semi-circle opening to the south with the cañon in the gulch. Climbing up through the rocky lanes among the houses, so steep that stones or sticks are often set in to form a series of rude steps, we came out on a level platform above the houses. On this levelled space about 50 by 75 yds across are built the church and a couple of small public buildings - all of the rudest character. They are all thatched with grass & the church walls are of stone badly earthquake cracked. Near one edge of the platform a grass thatched shelter, one of four covered two bells founded in 1704. No one was about & we had to wait for

While at Jacoche I obtained
 a few names of birds & mammals -
 They call the peak *zi-hual-ti-pie*
 but at Totontepec it is called *zempatltepec*.

Bird names -

Mammal Names


<i>Chamaespiza</i>	yuk-puh'	Civet cat	ihkk
Dark colored thrush	yuk-tsin'	Heteromys	aks
Flies	ku-yun'	Arvicola	nahsk
<i>Catherpes mex.</i>	sa-visoh	Sitomys	tsuk
<i>Junco mac.</i>	Koh'-shk	Geomys	zi'-bits
Trogon	tau	Rabbits	Koi-h
Large Hummer	sucks	Squirrel	aks-kaik'
Blk Red-tail Hawk	wis'-tun	Deer	hach-pu'-ut
Wood pigeon	muhs	Shrew	wi'-nts

our packers to arrive. As we passed
 through the town a large share of the
 houses were closed & we learned afterwards
 that the people were away in various places
 working as the village lost its crop last year
 owing to too much rain. A cold wind came
 across the ridge above us driving very
 masses of misty vapor that hid the
 main summits and often drifted down
 into the valley.

Finally our men came & an hour was
 spent trying to get some of the local authorities
 up to get permission to occupy a room in
 one of the public buildings. The men I had
 as carriers brought me & one of them finally
 opened one of the houses & I took possession.
 After a while we found a local messenger
 of the authorities called "tupil" & paid
 him to bring some firewood. Our horses were
 staked out on some steep slopes near by
 where a little grass is found. At sunset
 a raw wind swept down from the high
 ridge above us and made my woolen
 under clothing very serviceable.

July 5th to 7th Jacoche.

The morning after our arrival the head man
 of the village (Priandute) came up & I
 explained to him the object of my visit
 but he acted shy & uncomfortable all the time
 & after ascending to our remaining went off
 as soon as possible. We continued working
 the vicinity of this place with very good success
 for several days, the people acting shy & distant
 but not interfering with our going & coming in any
 way. It was curious to note the constancy with
 which the villagers, men & women, & pack drivers

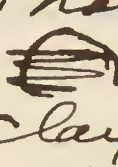

devotions to the images of virgin saints in
the rude church. Fresh flowers were brought
for the altar in front of images & each man or woman
coming singly, or one member of a family
always carried a little clay vessel open at top
& partly full of burning coals on which were
dropped incense gums during the devotions.
These vessels were all rudely made & shaped thus. 
The first devotions were paid by some of the men just
after the ringing of the native bell at 5 a.m. or thereabouts.
Then at about 7.30 the Prindute stood on the edge of the
terrace official came in hand & uttered a series of
loud calls which were soon answered by
a string of villagers winding up the paths from the
houses on the slopes below each with a small
wax candle & many incense burners in hand.
They filed silently into the church where could be
heard the low muttering of prayers of ten or fifteen
minutes after which all came out & dispersed.
At other times during the day, the Prindute
made a custom of coming up to the terrace &
from two different points which commanded
the houses on the slopes below he called down to the
people seeming to have some formal calls of
which I could not learn the meaning.
The first day or two we were here the men came
about & showed a little curiosity in our presence
after which they gradually avoided us more & more.
For two days a few eggs were sold us then they brought
these no more & I had reason to think that the
Prindute had instructed the people to have
as little intercourse with us as possible. As our
quarters were located just where the main
trail to several villages passed we saw an endless
string of men pass by loaded with corn, salt or
furniture en route to various towns where markets were
held. These people were usually professional carriers
& pack a load of 100 lbs. for from 15 to 25 miles a day
across these mountains. A considerable number
of the packers were carrying corn to neighboring valleys
where the people are wholly dependent on outside
supplies as the crop throughout this district was
a failure last year owing to too heavy rains.

The houses on the steep slopes about the village
were an all built in rich-like terraces cut in
the hillslope & the cutivated lands so steep that in
many places no oxen could be used. I saw
clothes started & roll with accelerating speed
from top to bottom of one of these hills through
the growing corn. The hill is covered with
zigzag trails laid out so to take advantage
of the slope. In all dealings with the people
here they showed the greatest distrust even in
the simplest things invariably demanded
pay in advance before doing even the
slightest service. The "Tupil" who did
our wood ~~bringing~~ water bringing ^{through}
our 8 days stay here made a rule ^{to this}
last of never bringing a jar of water even from a
spring about 50 yds away without first de-
manding or receiving his pay. Taking such trails
in consideration with the fact that no service whatever
would be rendered by most of the people
it was evident that these people were not
pleasant ones to be among. In addition to this
in two or three instances in which they had the
opportunity they stole such things as possible
from us & the Alcalde was twice caught trying
to steal a mat worth about 12 cents.

July 10th Yacochi - Today I
made a trip up to the summit of Mt. Jesuapathe
& found by my aneroid that instead of having
an altitude of 13100 ft. as given on my map it
really has only about 11400 ft. I was certain
that it could not have the height given as soon as
we reached Yacochi & I saw the peak close
by. On the slopes about Yacochi extending three
up to about 8000 ft. on the western & S.W. slope of
the mountain cleared areas planted to corn

or overgrown with low second growth
brush extend in points & island like
spots among the oak timber that covers
all unclaimed areas of the western
slope of this mt. ~~It seems~~ the untouched
forest covers not over one half of as much
of the surface below 9000 ft. The main
range of mts. coming in from a northerly
direction has a high summit of about 10000 ft.
alt. just north of the main mt. A high narrow
ridge with a saddle at 8000 ft. between
connects the two peaks. This ridge runs
in a northerly course so that the easterly &
westerly moisture laden winds from the gulf &
the low hot coast country come sweeping up
upon almost constant masses of clouds &
mist over the top of the ridge & down a short
distance on the W slope where a sudden change
to a vegetation of a much drier zone is noted.
The top of the ridge from about 7500 up is covered
with heavy oak forest which becomes heavy
& denser on top of the ridge & still more so down
the east slope. On the top of the ridge up to
an alt. of 10000 ft. I found dense oak wood thickly
grown up to brush with interlaced matted growths
of large ferns & a long slender creeping cane.
From the branches of the trees hang a
abundance of olive brown pendant mosses,
giving a very gloomy appearance to the
forest whose sad colored depths are constantly
dropping water from the spongy mosses & other
growths on the branches & trunks. Above
9000 ft. the undergrowth is much less common &
the bare leaf coated ground is abundantly

dotted with beautiful, rose-colored "Indian
pipe" flowers whose delicate color is par-
ticularly attractive in the dull, gloomy surroundings.
~~At~~ Whenever openings occur in this forest
as along the trails, or other places where
the trees are gone, the abundance of flowers
is remarkable along this ridge from 8000
to 10000 ft. Hundreds of graceful Chinon-petalled
lilies & a great variety of other flowers abound.
From 9000-10000 ft. A beautiful scarlet flamed
creeping plant which was common down
to 7800 ft. becomes very abundant and for
~~about~~ a couple of miles carpets each
side of the trail with the most brilliant colored
mass of flowers I have ever seen. Great
masses of these flowers extend up to
10000 ft. when they cease abruptly
with the oaks. On the west slope a species of
pine climbs upon outlying ridges to
about 9500 ft. Thence to about 10000 ft. is
a belt of oak timber wholly devoid of
pines. At about 10000 ft. ~~the~~ the oaks
cease abruptly & the pines come in from
a scattered forest of scrubby trees rising
thence up to the summit. An abundant
growth of bunch grass & many flowers occur
within the pine area that are not found else-
where. A good trail leads up through the forest nearly
to the level of the oaks & then turns down the east slope.
A small branch trail turns aside from this & follows on
up the ridge & keeping along it I was interested to find
it leading directly for the rocky summit. I had
no trouble in riding my horse to the foot of the rocky ridge
forming the peak, within about 200 ft. of the top.

Then I took my horse to a pine & followed the trail
up to the very summit. Then I was surprised to
find an accounting for the trail I had followed in
seeing that the extreme summit is evidently used as
a place of sacrifice to some of the ancient deities.
The ^{extreme} summit consists of a narrow ridge of rocks with
a small rounded, partly level space a few steps
across at the extreme top & connected directly
with a narrow ridge of rocks & earth extending
to the south ^{for} some distance at only a few feet
lower elevation. To the north, east & west the
summit thus stands up like a projecting
knob of rock with scattered, stunted pines
on the steep sides & along the ridge to the south.
The top of the knob is overgrown with small
bushes, grasses & flowering herbs except where
the crevices & chasms in the rock contain soil
sufficient to nourish them, but is ^{free}
from trees. On this bare rocky peak or knob
I found gathered the feathers of scores of turkeys
and a rude semicircular ^{shrine} of roughly
laid up rocks marked one of the points of direction.
An altar, but disused shrine had been made close
by among the loose rocks. The turkey feathers covered
all the level space on top of the rocks where small
bushes or other plants permitted the feathers
to become matted among their stems so not
to be blown away. In addition to the turkey feathers
were seen fragments of shells of turkey eggs
& pieces of broken clay pots of rounded shape
& full of round holes half an inch or more
in diameter, thus . These holes were evi-
dently made while the clay  was soft. The pots
were 4 to 5 in. in diameter & were probably used
for burning some kind of incense. I could find
no bones of the turkeys but marks of large fires were
to be seen on the ridge close to the rocks. While
searching about the sides of the rocky summit

I saw where some animal had dug a hole into the rocky slope 40 or 50 ft. below the summit & was interested to note that a large percentage of the soil seemed to be made up of broken fragments of pottery like those lying about on the summit. After my return to Camp a man came along from a neighboring village and in reply to my questions replied that the people of Yacochi & neighboring villages ~~are~~ are in the habit of taking hair & tusk up to the peak & offering their blood as a sacrifice to the spirit resident there. The feathers are also left as an offering & the flesh is often cooked & placed in some hidden spot close by for the report of the spirit. The people make these offerings about the middle of January & July each year & my informant told me to notice the first fine day after my visit & I would see many men pass each with a live turkey on his back on his way to make the offering of the season in order to get good crops. On July 12th this took place & without special attention I noted seven or eight men go by, each with his turkey as foretold. One of the men who went was from the house of the sexton of the Church here. I was also told that similar offerings are made at a small lake in the mts. above Villa Alta. There cooked turkeys are hidden in the tall grass growing near the lake. The constant attendance of these same people at the Church makes it evident that they ~~people~~ intend to get something from both sides if possible as they are taught that the gods they worship in the mts. are devils. I was told of a number of cases in which the worshipers of the devils of the mts. had secured great riches but at the time of their death had suddenly vanished as their bodies had been claimed by the devil to whom they were bound.

The people of the Mije tribe are very timid
& firearms are extremely scarce among them
while none of them have any idea of hunting.
They seem to be almost entirely vegetable
eating with corn as the main article of
food.

July 17th Yacochi - In the early
morning ^{yesterday} my Indian servant from San
Miguel was struck accidentally in
the muscle of the right arm near the shoulder
by a glancing pellet of no. 6 shot. It
penetrated deeply & he complained that
it hurt him considerably. After breakfast
he took a gourd water bottle & said he
would bring some water. We left camp
& evidently at once started for home as
he has not been seen since. This is
the second desertion on this trip. He left owing
me about 6 dollars money advanced on his pay
account. The people of the town still show their
unfriendly disposition & have even stopped
ringing the main vesper bells that were rung so
regularly the first days of our presence. I told
~~my~~ the people that I wished to engage two men
to go with me to Totutipe tomorrow whereupon
the Presidente & Alcalde both came to see me
and when I stated my desire they informed me
that I would have to pay 2. for each man.
As 50k is large pay per day here I objected
to paying four times that price & after some
talk & reference to my official letter I managed
to get the price down to 1.12 each which I agreed
to as the two old scoundrels said I could have
no men unless I paid that price. It is with
feelings of great relief that we pack up to
leave this inhospitable place.

May 11, 1894 -
During the time of my work in Mexico,
for the first 10 days, the gate of the
of the turtles Ben Carrasco & Saaguel

Trip to Toluca & Mexico
Locality in the mountains

Altitudes of Yacachi 4800
Zempatlape 11400 ft
Cerro Pelado just to the north is
very close to 10000 -

The villagers of Mexatlan below
Yacachi join with the latter
people in worshiping ancient
gods or not, Zempatlape -
January & July are the times when
offerings are usually made -

In Guayaquato about the year 1889
 Mr. A. C. Smith there were about 50
 civil weddings annually in a town
 of about 60000 inhabitants. In many
 churches the average wedding was
 about \$1000 or \$1200 in 1880-
 1890. I have been to Guayaquato
 from 1880 to 1890, in order to see
 them. I was there for 8 days.
 I set from 1880 to 1890
 I mean from 1880 to 1890
 in many churches on many books
 1000 to 1500 in 1880-1890.

Note by Charney

Note by Charney
 near Tanager on top.

The big Cypress of El Tule
 near Oaxaca is given as
 being 38m - 68cm high
 + 51m 88cm in circ. of branches

Stated by those from
 Oaxaca Manuel Ramirez.

1 Pr. Scissors	val 75¢
1 sack (mag. fiber)	12¢
1 Tin load	25¢
Tortillas	25¢
Food on eye	2.50
	<hr/>
	3.87

advanced him \$4.00
 worked out only 1.50 at 10.00 per month
 Began work June 26

Rosalia
(or Sta. Cruz)
Hk. of Rosalia, N.W. of S. T. Potosi, in
good place for alk-tailed deer

The Guerrilla Mt. lying N.E.
of Sta. Rosalia & Misoglagua
all face in good country for
Rabbit etc. Lake wagon from Sta

my museum

Limbolet = 2^d station E. of Locom
in Sierra Mojada RR. It is in
a very sandy country where
large land turtles & caecilians

~~The fern in Limbolet about
1/2 mile east of Sta. Cruz
Sta. Cruz, May 6, 1911~~

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