TEN WEEKS IN JAPAN.

By Mabel Loomis Todd.



HAT immortal school-boy was he who first noticed the curious fact that all the large rivers in his geography flowed past the largest cities?

Rivers may have this obliging peculiarity—but the various paths taken by total

eclipses of the sun across the earth's surface, are far from following so desirable a precedent. Indeed, it often seems as if things that happen in the sky actually select the most out-of-the-way and inaccessible parts of the globe as the only points from which they will deign to be seen.

The longest total eclipse ever observed — with, I believe, one exception — was that of 1883, May 6th, during which totality lasted for nearly five minutes and a half. Its track was thousands of miles in length, but lay almost wholly across the Pacific Ocean. It touched land only on the outskirts of the Marquesas Islands — a barren reef being the only point available for setting up instruments.

Even these obstacles did not deter astronomers from observing this fine eclipse, and the Caroline Island, six miles long by one mile wide, has become famous in scientific annals.

Alaska, Labrador, the summit of Pike's Peak — are only a few of the points to which observers and instruments have been transported to view solar eclipses.

Transits of Venus, it is true, are visible over much larger areas than eclipses traverse, but astronomers go far apart from one another to observe them, in order that Venus shall be seen projected upon portions of the sun's disk as widely separated as possible. Then, after years of calculation, the distance of the sun from the earth can be found.

But this seeming coyness of eclipses and other astronomical phenomena, confers one advantage in the fact that while astronomers are scouring the earth for good observing positions, they are able to see many strange places — which the average tourist would never think of visiting merely for pleasure.

The path of an eclipse may be hundreds, or even thousands, of miles long, but it is only about one hundred miles wide usually; and any astronomer who wishes to get good observations of the total eclipse must place himself very nearly in the middle of this path. So there is a long line of points from which the sun is seen to be exactly covered by the moon,— not from all at the same time, but from one after another, as the moon's shadow trails along the surface of the earth.

The progress or track of a total eclipse is, in general, from west to east. That of August, 1887, in which totality lasted between three and four minutes, lay at first slightly north of east.

Beginning near Berlin early in the morning, crossing the Russian Empire and the Ural Mountains, it turned somewhat to the south, passing laterally through Siberia and over Lake Baikal. Then, veering more to the south, it left the Asiatic continent at Mantchooria, and after crossing the Sea and main island of Japan, it ended several hundred miles out in the Pacific Ocean, about two hours and a half of absolute time after beginning in Berlin.

The only parties sent out from the United States to observe this eclipse, were in charge of Professor Charles A. Young, of Princeton, and of Professor David P. Todd, of Amherst. Professor Young went to Russia, near the beginning of the eclipse track; Professor Todd started in the opposite direction for Japan, to be near its termination.

The bright envelope of light which surrounds the darkened body of the sun during an eclipse is called the corona. If you look at the full moon through a window-screen, you will see rays of scattered light which look somewhat as the corona does—only they appear longer and much more regular than the real corona, which looks very different during different eclipses.

The corona is very faint, and it can never be seen, except while the moon hides the sun; and so astronomers have had only a small amount of time to study it. They are much puzzled to account for all that they see; but they have found a substance in it which is not known to exist on the earth, and which they have therefore agreed to call "coronium."

The corona is brightest near the edge of the sun, and this part of it may be a sort of atmosphere of the sun. The streamers or wisps of light, extending outward irregularly in almost every direction, are sometimes millions of miles in length, and seem to be due to a great variety of causes, possibly magnetic and electrical in part; but it seems cer-

tain that much of this light is reflected from the cloud of small bodies called meteors, which surround the sun.

Astronomers do not know whether this varies rapidly from hour to hour. And in addition to its greater duration than usual, this eclipse was a very favorable one for deciding this question by a comparison of photographs of the corona, taken about two hours apart.

Also, as the track lay across civilized countries, instead of barren water spaces, or through bar-

barous settlements, the telegraph was immediately available, whereby one astronomer could communicate at once with the other, in case anything of peculiar interest occurred.

The party for Japan was to start early in June, and on the 31st of May, 1887, the first train had gone straight through from Montreal to Vancouver, on the Canadian Pacific line. No steamer had yet sailed for China and Japan from that far-away and almost unknown port, but the pioneer voyage was to be begun on June 20th, by the old steamer "Abyssinia." So we bought the first tickets which were sold from Boston to Yokohama by that route, and indeed sailed on this first steamer.

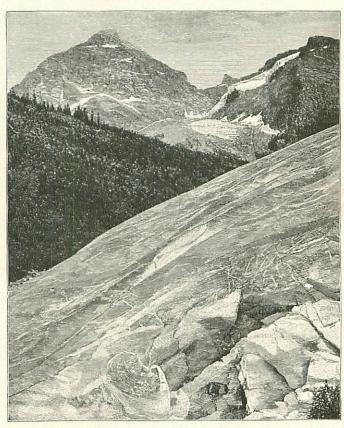
I must stop by the way long enough to speak of the scenery through which this railroad runs. It is interesting all the way, but the crowning delight of the journey comes during the last day or two in British Columbia—after the Rocky Mountains are reached. Four ranges are crossed in immediate succession,—the Rocky, Selkirk, Gold, and Cascade ranges,—while snow-covered peaks, enormous glaciers, mountain torrents leaping hundreds of feet at one

bound and dissipating in spray long before they can reach the valley below, cañons of marvelous wildness and magnificence, make all those hours one bewildering series of grand and beautiful pictures. Switzerland itself can scarcely offer a parallel.

Through a noble ravine, unromantically known as "The Kicking-Horse Pass," the terrible power of fire had made havoc with acres of hemlock forest, even to the tops of some of the nearer mountains, where human foot has never trod. Its fatal breath had turned miles of greenery into a melancholy

black waste. Close at hand the charred bark had peeled off the still upright trunks, leaving them gloomily white — a sinister grove without life or beauty.

After so many hours and miles of grandeur, it was almost a relief to reach the little town of Yale at the head of navigation on the Fraser, after passing through its magnificent cañon. Here the river spreads out peacefully after its tumultuous descent through the mountains; and beyond this foreground comes the ethereal gleam of Mt. Baker—



A MOUNTAIN VIEW IN BRITISH COLUMBIA, SHOWING PART OF GREAT GLACIER. (BY PERMISSION, FROM A PHOTOGRAPH BY W. NOTMAN & SON, MONTREAL.)

snow-covered, and far away in Washington Territory. The vegetation through this region is almost rank in its luxuriance. Thickets of wild-roses, beds of purple lupine, solid masses of scarlet "painted-cups," and of nodding yellow lilies, lined the track.

The little city of Vancouver is now only about three years old. But there are six or eight thousand inhabitants, and much business and traffic. The "Abyssinia" started promptly, and we steamed out into a very infrequently-crossed portion of the Pacific Ocean. After gales, fog, and cold, we an-



RIDING IN JINRIKI-SHAS.

chored fifteen days later in the beautiful harbor of cottages,—many of the roofs gay with growing flowers,—rice-fields, ponds full of creamy lotus-

Of the beginning of our experience in the "Land of the Rising Sun," I have only space to say that it seemed more like an animated fan or screen than anything real. Riding in *jinriki-shas* was endlessly entertaining, and I am obliged to confess that pity for the coolies who draw them does not extend far beyond the first day. These men are so eager for custom, and they run along in a sort of dog-trot apparently so easy and tireless, that the rider soon ceases to feel any troublesome compunctions, and heartily enjoys the novel conveyance.

After consulting many officials and meteorological records as to the location most likely to prove clear on the 19th of August, Professor Todd finally selected Shirakawa, a city more than a hundred miles from Tokio, near the center of the path where the eclipse would be total. To this city a railroad had just been completed. All the pleasant journey there, was picturesque with thatched

cottages,—many of the roofs gay with growing flowers,—rice-fields, ponds full of creamy lotus-blossoms, and cranes stalking about in marshes, or flying, as if for decorative effect, through the sunny air.

Upon our arrival we found ourselves objects of intense interest.

Our train was the first for passengers which went through to the little city, and the crowd at the station followed us all the way to the native hotel which became our first headquarters. Seated in a circle on the straw-matted floor, with our shoes left at the entrance (where an eager assembly examined them), we enjoyed one of our first purely Japanese meals. A vista of numerous rooms, partly separated from each other by sliding paperscreens, opened beyond us, ending at last in a cool, damp garden, full of flowers, stone lanterns, and a fountain. Each of us was provided with a tiny square table, about six inches high, upon which was placed a lacquer bowl of strange soup

containing an omelet, the bowl for rice with chopsticks, and other articles not easily to be described in words. Little maids, strikingly like the well-known trio of "Mikado" fame, served us smilingly, and seemed surprised that our ability to eat rice ceased with the third bowlful. But until one has become quite accustomed to the use of chopsticks, eating with them is a rather laborious operation — particularly helping one's self to soup.

Professor Todd had received from Count Oyama, the Japanese Secretary of War, permission to set up his instruments at the top of the old castle; and the next day we visited the beautiful ruin. The dwellings had been burned in the revolution of 1868; but three tiers of stone embankments, surrounded by a moat, rose picturesquely near the city. As we strolled up the grassy path, with insects buzzing and humming all about us, and the peaceful sunshine lying silently over the grim

sort of opposing element struggled for the mastery—stoutly-repelled but ever-advancing modern thought, hatred toward foreigners, noble desire for the best ideas and civilization, Buddhism, Shintoworship and Christianity; while through it all the forces of Shogun and Mikado battled unto death.* But out of this revolution, and the ideas which stood behind it, came light and progress and "new Japan," eager for knowledge and full of splendid, far-reaching ambition.

For three hundred years the old gray walls have looked down upon the town eighty feet below, and upon the vivid green rice-fields, stretching away to distant mountains. The moat flows darkly around, reflecting the sky and the massive masonry above. A portion of it is overgrown with the magnificent leaves and blossoms of the pink lotus; and yet another part is now a profitable rice-plantation.

Picturesque gnarled pines are rooted here and



JAPANESE ARTISTS ORNAMENTING LANTERNS.

stone-walls, it was hard to imagine that only twenty years before had been fought here a bloody battle, as this last stronghold of the once all-powerful Shoguns fell before the Mikado's conquering forces.

Bitter times were those stormy years, when every

there, and over the whole ruin run ivy and swinging festoons of white wild-roses.

Carpenters and coolies were soon at work setting the instruments and making the houses to cover them; and on every clear night careful observations of stars were made with the transit in-

^{*} See "Great Japan: The Sunrise Kingdom," St. Nicholas for November.

strument having some special attachments, which ure in relief, of a horse, appeared to be the only disgave us our latitude, or distance from the earth's equator, as well as accurate local time. The lat-

tinctive manufacture. The reeling of silk seemed the chief occupation of the women. In nearly ter was compared with the local time at the Ob- every house could be seen young girls plunging

> their hands into basins of hot water for the white cocoons which floated about in the steaming bath.

> Returning to the hotel one morning, after a trip through the town, I wished to pay my kuruma-runner* the ten sen which was the modest sum he demanded for two hours of service; but I found nothing smaller in my purse than one yen. The yen is the Japanese dollar, worth at that time about seventy-seven cents, and is composed of one hundred sen. So our little maid ran out to change it for me, coming back in a few moments rather less speedily, and laughing heartily. The reason was only too soon apparent. She had changed the paper yen all into copper 8-rin pieces - and it takes ten rin to make one sen! The 8-rin piece is nearly two inches long by one wide, and has a square hole in the center. The weight of 125 of them strung together on stout twine can perhaps be imagined! My limited stock of Japanese forbade my inquiring concisely whether she perpetrated this pleasantry "on purpose," or whether she was indeed unable to get any larger change - which seemed to be the burden of her loquacious explanation. However, I disposed of as many as possible to the coolie, and laid the rest away for a financial

rainy day. These curious coins are seldom seen

in the larger cities frequented by foreigners.

The Japanese inn was finally abandoned for the tents on the castle, and during five weeks we camped out in a truly Bohemian fashion, very attractive to those not burdened with pretentious conventionality.

How our cook was able to provide us with dinners of several courses from a combination of the



"THREE LITTLE MAIDS."

servatory in Tokio, which told us how far east we were from Greenwich, the world's prime meridian. All these preliminaries, with many others, were necessary to make available future observations of the eclipse.

In the mean time, a few excursions about the town proved that there was little of interest in the shops. A heavy sort of porcelain, made not far away, which showed upon every piece either the outline or fig-

^{*} Kuruma is defined as carriage, or cart, or chariot. Jinriki-sha is a small two-wheeled cart drawn by a man. The words are used interchangeably.

painfully deficient material to be found in the fown and the "tinned" articles which we received from San Francisco and England, through Yokohama, was always a mystery. But he was a Japanese and had resources of which we knew not. It was always with a feeling of delightful security that we approached our tent dining-room, and "Cook-san" never disappointed us. We did make an effort toward freedom from condensed milk, and engaged the one man in the town known to own a cow to bring us fresh "chichi." Several days passed, and he did not come. Inquiries for a week brought out the information that our milkman owned only "one piece cow," and he could not supply us. His regrets were accompanied by a magnificent spray of tall white lilies.

have much silver in their composition, which may account for their deep and wonderful sweetness. Whether this be so or not, the bells make a profound impression upon all sensitive or musical organizations, heretofore accustomed to the more discordant church-bells of a newer civilization.

And never did the lovely temple-bell in Shirakawa ring out so sadly and deliciously as one night when a great fire laid waste a portion of the city. Thirty or forty houses made a fine blaze for two or three hours, and we watched it from the castle wall with pity and interest. The crackling of the flames as they licked up one little thatched roof after another, was terribly audible; so, too, were the helpless cries and shouts of the surrounding crowd — while the red cinders were whirled far aloft,

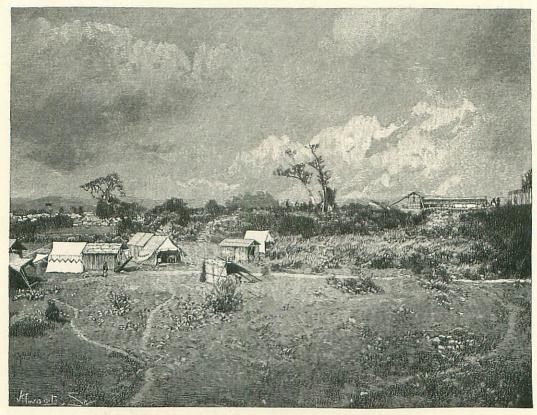


QUIET ENJOYMENT.

The bells of Japan are among its loveliest possessions. One of the sweetest of them rang out many times every day into the waiting air, in this far-away little city. Its tone was intensely thrilling and pathetic. The bells are not sounded by a clapper within, but are struck from the outside by a sort of wooden arm, or battering-ram. Being withdrawn to the proper distance and released, it strikes the bell once—and the strokes are allowed to succeed one another only with a dignified and stately regularity. Tradition says the finest bells

and fell even around us. But through the confusion and tumult, the calm bell rang out its indescribably beautiful note—in quicker succession than usual, but losing none of its dignity and sweetness, for all the discordant sounds so near.

The music in Japan, however, is far from being melodious. Nearly everything is in a minor key, E-minor being apparently the favorite. It is all equally chaotic and unintelligible to foreign ears, from the weird songs of the workmen as they chant in unison, to the elaborate pieces performed by



THE CAMP OF THE EXPEDITION.

ladies upon the koto,* accompanied by the voice. There being much yet to be done in Shirakawa upon the new railroad, gangs of twenty or thirty coolies were busy all day in heavy labor of all sorts. At their work they sang and shouted together upon three notes, which at last became nearly unendurable. I observed in many places the song or chant of laborers, and this one unchanged succession of sounds was, I believe, peculiar to this particular region. I have written it out in notes as well as it can be so expressed — but there is a weird, nasal intonation which it is impossible to transcribe:



and so on, day in and day out. I think these three notes, sung thus, contained more melody, or "tune," as children say, than anything else I heard in Japan. In some places the laborers ended invariably on the second of the scale—at others on the seventh, both of which actually wear one out,

mentally, waiting for the restful tonic which never comes.

The officials and other dignitaries of the city and surrounding region were exceedingly attentive and polite, sending presents continually, and doing many graceful things to make our stay agreeable. One evening several of these gentlemen paid us a visit, bringing with them three musicians and a dancing-girl.

The koto was not used on this occasion; the samisen, a smaller three-stringed instrument, played with an ivory spatula; and the kokyu, held like a banjo, but played with a big bow like that of the double-bass; and a flute, constituted their equipment, accompanied by singing. The young girl who danced for us was graceful and attractive; her posturing, performances with a fan, and the stamp of her bare little heels in a sort of rhythm with the music were pretty and skillful. The names of two or three of the pieces played for us show how largely nature and flowers enter into the thought of the Japanese, "Harusame" (Spring Shower); "Umenimo-Harus" (Spring Falls on Plum-blossoms); "Haru-hana" (Spring Flower). And flowers are everywhere - in every tiny gar-

* A 13-stringed harp, or zither, about six feet long, and played as it lies upon the floor, instead of being held upright.

den, often thickly blossoming in the roof-thatch, and filling the meadows and roadsides. I once saw an immense squash-vine, covered with its yellow flowers, trained from the ground quite over a little house, hiding it completely from passers in the road.

- The shops and smaller houses in Shirakawa were also very hospitable to swallows, whose nests frequently hung from the low ceilings just above our heads, and as we bargained for some bit of porcelain or lacquer, the birds would flutter in and out, perfectly fearless and at home.

Royal purple Canterbury-bells crowned the castle walls; "sun-tanned" yellow lilies and clematis disputed every thicket with the swinging white roses, while the pink lotus reigned over them all. Some of the neighboring ponds were full of the tiny, scentless, white water-lily and the rank yellow pond-lily, and moist places abounded in small, feathery, white orchids. There was also a very superb lobelia, almost exactly like our own cardinal flower, except that its color was the richest purple. All these beautiful things were endlessly attractive to paint, and I spent many hours in the entrance of my tent, at work on their dainty curves and colors.

One of our boys brought up to me one morning



HAIR-DRESSING. (FROM A PHOTOGRAPH.)

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ONE KIND OF STRAW RAIN-COAT.

a superb group of lotus-flowers, buds, picturesque seed-vessels, and leaves, in which each stem was carefully tied with a string just above where it had been cut. They are thus kept fresh longer.

These regal flowers were at least six feet high, and I had no canvas large enough for them. At last I thought of the *mino*, or straw "rain-coats," several of which I had bought to serve as mats about the tent. Taking a fresh one, I had it tacked up before me at once, and upon that improvised background I painted the queenly flowers and their huge, surrounding leaves.

The greatest interest in these paintings seemed to animate all the Japanese about the place. From the white-robed police who guarded the castle entrances, to the coolies who brought water through the day, all, at one time or another, would stop and look on as I worked, so that I rarely painted without an audience.

Among the water-carriers was one poor creature who, from his entire lack of personal comeliness, was noticeable even among his companions—none of whom possessed physical graces to any marked degree. His garments of dark-blue cotton were older—not to say fewer—than those of the rest, and he had a singularly retreating, expressionless chin, which was still further over-



SELLING TEA-POTS AND OTHER METAL UTENSILS.

shadowed by the straw band which held upon his head his queer little round hat. We wickedly christened him the "Missing Link"; and, truly, no mortal seemed ever to embody that title so fully. He was a picture of forlorn, hopeless poverty and subjection as he toiled up the steep path, bearing across his shoulders the yoke from each end of which hung the wooden buckets of sparkling water. (Clear, pure, safe water was one of our compensations at Shirakawa.)

And yet, this poor specimen of humanity, hardly a man, began at once to show the most intense and absorbing interest in each flower-painting. After every trip with his buckets he would come to my tent—timidly at first, then advancing nearer, as I showed no displeasure. There he would stand, watching eagerly, almost thirstily, until, remembering his yoke, he would start away abruptly, only to come panting up the hill again to see what had been added in his absence.

During the two mid-day hours, when all the laborers rested and took their lunch, this coolie sat in the shade of a particular bush near by, with his little bowl of rice, often making excursions to my tent, even if I were not still painting, to look through the opening at the various studies pinned around the sides. Often at such times he acted as showman and general guide to the other workmen—they standing in a circle about him as he pointed out one thing after another. I watched him on many a sultry noontide from the shade of a large tree not far away, and I could see his poor face fairly glow with enthusiasm as he talked to his audience in a perfect whirl of Japanese.

I asked our interpreter one day what the man was talking about.

"Oh!" said he with a slight shrug, "that's only an eccentric coolie admiring your flowers, and telling his friends how you did them and which he likes best."

One morning this poor water-carrier came up to me rather shyly with a great bunch of beautiful wild-flowers in his hand, which, with a word or two, he presented "for *okusan* [madam] to paint."

I thanked him as well as my meager Japanese permitted, and put the flowers in water, at which he seemed gratified and went away. After that his floral offerings were frequent, as well as his exhibi-

tions of the studies to others. But it seemed as if the water-buckets grew daily heavier for him sometimes he would come up to the tents only once or twice during the day, and I often saw him resting in the shade on the upward path.

"Coolie sick," replied one of my servants who had mastered a few words of English, when I asked about him. The last time I saw the poor "Missing Link," he had toiled up with his buckets and a splendid tangle of wild pea-vines, whose large purple clusters hung down richly from a mass of green. These he brought to me, his face lighting up once more as I thanked him, while he looked about at the different pictures. Then the usual stolid heaviness settled over his uncouth features, and heturned away, going heavily down the grassy path, and around the corner of the old stone wall. He never came back again.

One of my last excursions in the neighborhood was a pleasant jinriki-sha ride of five miles to the base of a high hill, - or mountain, as it might more properly be called, -at the top of which was an ancient Buddhist temple to the horse-headed Kuwanon, Goddess of Mercy. Leaving our men and kuruma below, we began the climb, which, although steep, was very lovely, through sunny woods full of flowers, past quaint little shrines, with constant views of a blue and hazy distance.

At the top we found the small temple of unpainted wood, which, standing high up against the sky, had long been a familiar landmark from the castle. It was richly carved, and weatherstained to a silvery gray color. Within, the ornaments were rather cheap and uninteresting, being chiefly pictures of horses in every imaginable attitude - some fully painted, others merely sketched in outline on pine boards. Outside, in a shrine, stood a life-sized figure of a horse. Stone lanterns, partly moss-grown, and a large bell completed the visible equipment - all of which was charmingly overshadowed by fine old Japanese cedars, which grow to a great height.

The ministering priest at this lonely altar - a man with a cleanly-shaved head and fine face approached us by a shady path, his thin robes of black and green catching the welcome breeze. My companion wished to purchase one of the horse-pictures from the interior as a memento of the temple, to which the priest at once consented, seeming well pleased with the handful of coin which he received for his complaisance.

When we reached the little town at the foot of the mountain, on our homeward way, all the inhabitants came out to see us - some offering flowers, while an old lady presented us with hot ears of roasted sweet-corn on a pretty tray, which



A JAPANESE SHOE-SHOP.

were very appetizing after our long walk. One little boy ran to me, holding out a large locust, somewhat like a katydid, which makes a most unmelodious screaming, much to the edification of its hearers. These little creatures can be bought in cages for a few sen, and children often keep them as pets.

Twilight fell during the homeward ride, and each coolie lighted his little paper lantern as we sped on into the early evening. Against the examine us in our various trips, had an expression of absorbing interest upon their faces, such as they might have worn on seeing some strange but not unamiable animal. As long as we appeared not to notice their gaze this expression continued. But the instant we smiled or showed any consciousness of their nearness, the faces looked startled, smiles disappeared, while curiosity and wide-eyed surprise, not unmixed with apprehension, filled their features. It was much as if a toy elephant

quietly over the bright, blue sky, until even

the visitors began to look upward, with some

fear lest the afternoon might be only partly

clear after all. And that little white cloud not

only grew into great size itself, but it was

joined by other and darker ones from all direc-

tions, which, as they seemed to gain confidence

from numbers and blackness, soon shut out the

sun completely and spread consternation over

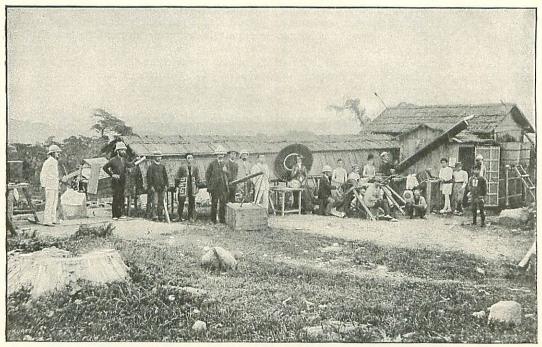
should unexpectedly nod or speak. As the time for the eclipse drew near, the number of visitors to the castle greatly increased, and the preparations, extended through pleasant conversation filled the hot

yellow sky, flat-topped pines stood boldly outlined, while nearer by we caught glimpses of many a picturesque interior. In these little thatched houses a square hole in the polished floor held a few sticks burning brightly and casting a ruddy light on the surrounding household group. A kettle hung above the fire, and the brown faces and limbs of the family, as well as the little china bowls out of which they were all eating rice, caught the flickering light as it danced in warm tints about the poor little room.

A GLIMPSE OF A JAPANESE HOME.

The children, who frequently stood in groups to every face around us. The beginning of the

long weeks, received their final touches. At last the 19th of August dawned,-"the great, the important day," - ushered in with the clearest of skies and the most radiant sunbeams. Twenty or thirty of the guards, in snowy dresses, watched the castle and all its entrances, and none except the specially invited guests were admitted. The instruments were carefully adjusted for instant use, and, in spite of the torrid heat, we were all astir with eager anticipation. The guests quietly gathered in the open space below the instruments, and a subdued hum of noontide. The eclipse was to begin at thirty-seven minutes after two o'clock. About an hour before this, a delicate little white cloud floated up toward the zenith and spread very



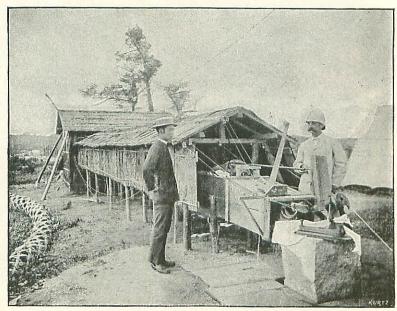
THE UNITED STATES ECLIPSE EXPEDITION TO JAPAN, 1887. (FROM A PHOTOGRAPH.)

eclipse was not seen at all, but we caught a few glimpses of the sun afterward—a gradually narrowing crescent.

As it became apparent that my part of the work—which was to draw the filmy, outermost streamers

of the corona - could not be done, I left my appointed station and hastened to the upper castle wall. Here, standing near the instruments, I watched the strange landscape under its gray shroud. Even inanimate things seem endowed at times with a terrible life of their own, and this deliberate, slow-moving pall of cloud seemed a malignant power, not to be evaded. At the instant of totality a darkness and silence like that of death fell upon the castle and the town and all the world around.

Not a word was spoken: the very air about us was motionless, as if all nature were in sympathy with our suspense. The useless instruments outlined their fantastic shapes dimly against the massing clouds, and a weird chill fell upon the earth. Darker and still darker it grew. Every trace

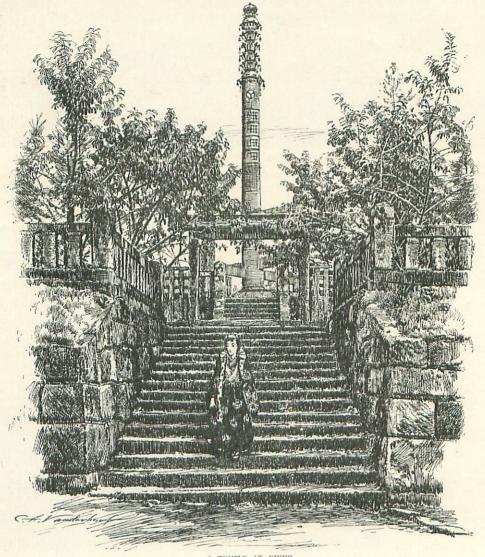


NEAR VIEW OF CERTAIN ASTRONOMICAL INSTRUMENTS, IN POSITION.

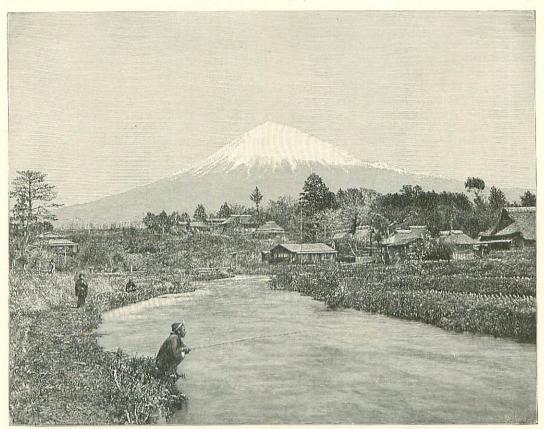
of color fled from the world. Cold, dull ashen-gray covered the face of nature; and a low rumble of thunder muttered ominously on the horizon. Even at that supreme moment my thoughts flew backward over the eight thousand miles of land and stormy ocean already traveled, the ton of telescopes brought with such care, the weeks of patient waiting at the old castle,—all that long journey and those great preparations for just these three minutes of precious time, which were now slipping away so fast.—And already they were gone! One sharp, brilliant ray of sunshine flashed down upon us. Totality was over—and lost! This tiny rift in the clouds showed

the slender edge of the sun for a second and was gone. And a profound sigh, as of great nervous tension relieved, came up from the crowd below. The calamity was too great to be measured at once, and it was some minutes before we cared to speak. We had trusted Nature, and she had failed us, and our sense of helplessness was overwhelming.

Every astronomical student now knows how the track of this ill-fated eclipse was followed by clouds all along its course, and how totality and the wished-for corona were hidden by clouds from nearly all the eager eyes and waiting instruments through its entire length. But an astronomer must



A TEMPLE AT NIKKO,



FUJI-SAN, THE SACRED MOUNTAIN OF JAPAN, AS SEEN FROM OMIVA VILLAGE.

be philosophic; and our astronomer nobly displayed this quality.

And so, gradually, our visitors left us, and the sound of demolishing and packing was heard on the hill. The tents were folded, and the party dispersed.

I stayed for a few days at lovely Nikko, of which the Japanese proverb says, "Let no one who has not seen Nikko pronounce the word beautiful." Here are the tombs of Iyéyasu, the first Shogun and founder of Yeddo, and of Ivemitsu, with innumerable temples, mountains, springs, and torrents, and a beauty and verdure of foliage almost beyond description. Leading to it from the railway station at Utsunomiya is an avenue twenty-five miles long, shadowed all the way by evergreens, through whose interlacing boughs, more than one hundred feet above, the sunbeams can scarcely penetrate to the traveler, rolling easily along in his jinriki-sha. avenue is a portion of the road by which the old daimios, or nobles, used to make their pilgrimages once a year to Nikko, and was built for them hundreds of years ago.

As Professor Todd was to make another expedition for astronomical observation to the summit of Fuji-san, or Fuji-yama, the great sacred mountain, a time only long enough for necessary preparation was now spent in Tokio. But during those few days I saw many interesting things, among others a place where the rich and heavy wallpapers for which Japan is famous were made. The thick paper has the design stamped upon it in relief while it is yet white. Over this are laid by hand and patted firmly down, small sheets of silver foil. When a certain length has been covered with the shining leaf, it is taken to another room and overlaid with transparent yellow varnish, which makes it look like bright, rich gold. If the background is to be a different color from the design a perforated pattern exactly covering the design is laid over it. Upon this the paint is dabbed with brushes by young girls standing at a long table. The figures being protected, as I have said, the color reaches only the background, and the gold leaves or flowers or butterflies then stand out clearly upon dark red or other color. In a further room more young girls were filling up rough edges of the outline with their brushes dipped in the background color. When the paint is dry, another coat of the clear but most ill-smelling varnish is added, and the whole hung up to harden. Many of the designs were very rich and decorative, and I was interested in seeing several with which I had become familiar through Japanese papers imported into America, and in observing the difference as to price and length of roll here and at home.

After the wonderful trip to the top of Fuji—which was an event for a life-time—the remainder of our visit in Japan was spent socially and delightfully in the capital and at Yokohama. But all too soon our steamer sailed from that fascinating land.

After picking up somewhere in the gray wastes of the Pacific Ocean the day which, as all young students of geography will readily understand, we had dropped at the 180th meridian in going over, we found ourselves once more in Vancouver, which seemed to have grown as with years since we had been away.

The royal mountains were clothed in autumn reds and yellows, and it was America! Even this remote corner of British Columbia was home, and we sped across its beauties and through all the days thereafter, until the satisfaction of the general home-coming became the bright particular welcome which warms the heart.



IF I 'd been born across the seas, In a little house of clean bamboo, Among the flowering cherry-trees;—
If I 'd been fed on fish and rice,
The queerest nuts that ever grew,
And all the different sorts of teas;—
If I 'd been used to a jinriki-sha,
And never seen a railroad car,
Perhaps it would n't seem so nice
To be a Japanese!

But "Mary Jane" does sound so plain, Compared with "Neo Ina Yan"; And such a place as "Jones's Creek" (That's where I live and must remain) Could not be found in all Japan! Instead of "Pike's" or "Skinner's Peak," Of Fuji-yama there they speak — The Sacred Mountain by the seas. How elegant geographies Must be in Japanese!

We have such very common things, Like pigs in pens, and coops of hens, Round corner-stores that smell of cheese; While they have storks, with spreading wings, That live among the reedy fens. Their girls have paper parasols And painted fans, as well as dolls; They wade in flowers to their knees, And live a life of joyous ease, The happy Japanese.