## THE CRUISE <br> OR LAND YACHT



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# The Cruise of a Land-Yacht 



BY
SYLVESTER BAXTER

ILLUSTRATED BY
L. J. BRIDGMAN


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By

## Sylvester Baxter.

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## The Cruise of a Land-Yacht.

## CHAPTER I.

TALKING IT OVER.


ARRY, how would you like to go off on a good yachting-trip ?"

It was Harry's father who asked the question. They had just sat down to dinner in their cosy dining-room on Newbury street, Boston: Mr. and Mrs. Marsden and their son Harry.

Harry's eyes sparkled and his face flushed eagerly. "Like to go a-yachting? There's only one way I'd answer a question like that, you know! But how - "
"A yachting trip at this time of year!" Interposed his mother. "Why, what can you mean?"

Mr. Marsden leaned back and smiled, enjoying the puzzled expressions of his wife and son. In Harry's eyes was to be seen a mingling of hope and incredulity. Harry had a passion for the water, and he owned with his friend Dan Matthews, a fine cat-boat which they kept at City Point and cruised about the harbor in
nearly all summer. But now it was January, and the Brynhilda was lying in Lawley's yard all covered over with boards and canvas.
"Your brother Lemuel was in town to see me at the office this morning," said Mr. Marsden, addressing his wife. "He is going South on a long yachting-trip, and he would like to take Harry along. I told him I would see what you thought about it."
"Well, if the weather keeps on like this, there will be little need of going South. Yachting will be quite in order along the New England coast and I wonder Harry and Dan haven't put the Brynhilda into commission before this," said Mrs. Marsden laughingly, and she looked toward the open window at the end of the room. The air was soft and warm outside, and since the beginning of what ought to be winter there had been scarcely any snow or ice.
" Uncle Lem is a white man!" exclaimed Harry, enthusiastically.
"I should hope so," remarked Mrs. Marsden, seriously. "He is your mother's own brother!"

Mr. Marsden laughed. "Harry picked that up from Eliot. 'A white man' is his pet designation for any person whom he admires."
"Yes, and the other day when I told him what Mrs. Nelson had done for the manual training school at the North End he said she was a regular white man!" said Harry.
" Well, Harry is a good sailor, and Lemuel will find him very useful about the yacht," remarked his mother.
" I only wish Dan were going, too," said Harry.
"Dan will have to be content with your letters this time," replied his father.. "By the way, Eliot is going along, though."
"Good enough !" cried Harry. " But he'll be awfully seasick,"
he reflected, remembering his cousin's dismal experience when he and Dan took him down to Marblehead one day in the Brynhilda.
"Oh! I'm sure he won't be this trip," said Mr. Marsden, and he smiled again, mysteriously.
"Why, if Uncle Lem is going to the West Indies - or is it Bermuda, perhaps? - Eliot would get turned inside out before we got there!" exclaimed Harry.
"The West Indies?" cried Mrs. Marsden in alarm. "Merciful heavens, I forgot all about Cape Hatteras! You'd have to weather it in midwinter and the chances are you'd all get wrecked. It's bad enough for steamers, but in a yacht - or is it a steam-yacht that Lemuel has now? I never heard anything about it before."
"Yes, I suppose it might be called a steam-yacht," replied her husband. "Steam is the motive power. It's a brand new craft, just built specially to his order."
"Well, I'm sorry, but if he's going to the West Indies he must pass Hatteras, and for all I'm accustomed to have Harry on the water all summer, it wonld worry me nearly to death to think of him exposed to the danger of the perpetual winter storms that rage in that region. No, I can never consent to Harry's going, and we may as well give up thinking of it first as last. For my part I don't see what ever could have put the idea into Lemuel's head. He is always so sensible. But to run a risk like that! No, Harry, you can't go!"

Harry's face grew long. "But, he is not going to the West Indies, nor Bermuda, nor past Hatteras," said his father. "He is going to Mexico."

Harry brightened up instantly on perceiving his father's reassur-
ing tone, but did not yet recover by a point or two, to speak nautically, the full confidence of his expectation, as he asked doubtfully : "But how could he get to Mexico without going first to the West Indies, or even past Hatteras?"
"Why, simply because he is not going by sea at all; he is going by land!"
"By land? But you said it was a yachting trip!" said Harry, more puzzled than ever.
"And you just spoke of the yacht, too," added Mrs. Miarsunn. "I'm sure I don't understand what you can mean!"
"To be sure I did! But it is a land-yacht." And Mr. Marsden leaned back and laughed heartily.
"A land-yacht? Who ever heard of such a thing?" excloimed his wife, still mystified.

Harry had now fully recovered the joyful mood that his father had at first roused in him and his bright young eyes were dancing with excitement and the keenest curiosity. "But what kind of a thing is a land-yacht, father? I thought I was well posted in yachting, but this is the first time I ever heard of that sort of a craft!"
"You never did? Why, the woods are full of 'em! The woords, and plains, and mountains, and railroad yards! The fleet of land-yachts in this country is something enormous."
"Oh! you mean a railroad car!" said the boy.
"Yes, a private car."
"But what do you mean by calling such a thing a yacht?" asked Mrs. Marsden. "I thought a yacht was something that belonged only in the water, like a fish. A land-fish would be a queer sort of thing in natural history !"
"I don't know about that," replied her husband. "Haven't you ever heard about that strange kind of fish in Brazilian rivers that, at certain seasons comes out of the water, climbs trees, and builds its nest in them? Just as there are sea-molluses and landmolluses, sea-crustaceans and land-crustaceans, so the genus Yucht has its water-species and land-species There's an ice-yacht for instance!"
"But an ice-yacht has a mast and sails," remarked Harry.
" Neither a mast nor sails are essentials for a yacht, as you well know," explained his father. "There are steam-yachts that have neither. A yacht is a craft designed for pleasure, that cruises about wherever its owner or navigator chooses, stopping or going from place to place to suit his will. A private car on a railroad answers
shat description, and is, to all intents and purposes, a yacht. It makes no difference whether a yacht is on wheels, and runs on a track, or has a keel and floats in the water Some time in the next century, or perhaps before the present one expires, if Mr. De Bansset succeeds in getting anybody to take hold of his wonderful invention, probably the favorite form of pleasure-navigation will be yachting in the air."
" I understand now," said his wife, " and for my part I would prefer a land-yacht to a sea one. Now tell me about Lemuel's plans."
"As I was saying, he has just had a land-yacht, or private car, built. It was designed to suit his ideas, and according to what he tells me about it, it must be a beauty. He is going to Mexico on his first trip and intends to spend the winter there. You know he dislikes our northern winter exceedingly. Madelaine is going with
him and the rest of the party will be made up of young folks; Florence, of course - and Mabel Sampson has been invited, so that Florence will have a companion near her own age ; Eliot Sampson goes along, as you have already heard, and finally there comes Harry, if we decide that he can go."

Harry turned towards his mother with a look so imploring that she laughed as she said, "Well, now that Hatteras is out of the way -" Glancing at her son's pale face she remembered what a picture of youthful health he had been at the end of the previous summer, when he began his studies again, brown as an Indian, lithe and strong as a colt. - "You know the Doctor has been saying that it would not do for him to study any more this year - that is, not until the fall term begins - and that a change of climate would be the best thing for him. And we were talking of sending him to Florida. So this is really just the opportunity."

Harry Marsden was seventeen years old. He was in what was to have been his last year in the English High School and the next autumn he was to enter the Institute of Technology. But this illness had disarranged these plans. Harry's attack of the "Grippe," although it had not seemed severe at the time, had left him in such a condition that he could not apply himself to study without serious exhaustion. He had been chafing under this restraint and worrying because the other boys would pass him by, a year ahead. There was one consolation though, enough of his companions were "in the same boat" to assure him against lonesomeness, and some of the best boys in the class ahead had also been set back by the epidemic, so that the next year they would, at least, not be any farther ahead of him. Dan, however, had escaped and would enter the Instiute
ahead of him. That was hard, when they had so long been planning what they would do together there, but then he knew that Dan would not plume himself on that account, and Harry consoled himself that he could look to his friend to "show him the ropes" when he got there himself. And now this chance for travel in a far and strange country had come and Harry began to be glad that he had had the " Grippe" after all; what he would learn would be worth giving a year of school for, he thought.
"Why Harry, you look so well at this moment that I don't believe there is any need of going away for your health at all," remarked his father, tempted to tease him a bit. "You may as well go back to school to-morrow." He smiled at the shade of dismay that came over the boy's face and continued, "But I think that if we decided that way the disappointment might set you back so that we would have to let you go after all."
"But are n't you a bit disappointed, Harry, that it is to be a cruise in a land-yacht, instead of by sea?" asked his mother.
"Not at all," he responded. "It 's about time I saw something more of the land. You know I have never been beyond New York yet. The West Indies will keep a while."

So it owas settled that Harry should go. "When does Lemuel's yacht sail? - or roll - I suppose I ought to say," asked Mrs. Marsden.
"Let's see. To-day is Saturday. A week from next Tuesday, which will make it January 4 ; from the New York \& New England station with the Washington Express.

## CHAPTER II.

THE ARIADNE.


## Harry marsden's uncle, Mr.

 Lemuel Brinkley, was a very wealthy gentleman. He had withdrawn from active business pursuits on reaching middle life, and very sensibly had determined to make the most of his remaining years in following the lines of study and observation that most interested him, besides making the best use of his money in behalf of his fellow men that his kindly heart might prompt and his sagacions mind suggest. He was very fond of travel and a favorite project of his was to see all the interesting portions of North America that he could reach conveniently by railway. To this end he had had his new car built. " In that way I can travel under the most favorable conditions," he said. "One may stop anywhere he chooses, and if there chances to be anything that particularly interests him, and the place has no accommodations for travelers, he can remain there in comfort so long as he wishes and see everything at leisure. To active youth a little hardship, discomfort and fatigue give to travel the zest of adventureand sometimes increase the enjoyment. But at my age, however, I find that the more comfortable the conditions under which I see things, and the less I am distracted by such annoyances as mosquitoes, flies, fleas, etc., uncomfortable beds and badly-cooked, indigestible food, the more I enjoy what I see and the more I learn from it."

Mr. Brinkley had been to Mexico once before with a party of railway directors but the most of them had been in so great a hurry to get back to their business that he had been able to get but tantalizing glimpses of the country, and so he determined to go again at the first good opportmity and enjoy it more thoroughly. In his various journeys to different parts of the country, Mr. Brinkley had often made use of private cars. He had been intending to buy one, but his experience had shown him that certain improvements might be made in design and construction that would materially increase comfort while traveling. He therefore decided to have a car built for himself according to his own ideas.

The party which he made up for the first voyage was very pleasantly composed. Mrs. Brinkley was as fond of travel as he was. His daughter Florence, recently through school, was going along for her first taste of extended travel. His nephew, Eliot Sampson, was a young civil engineer, about 27 years old, a graduate of the Institute of Technology, and had spent something like three years in Mexico engaged in railroad work. He was familiar with the country and the Spanish language. His knowledge of the points of interest, of the things most worth seeing and of the best means of seeing them, would make him an invaluable member of the party. Eliot's sister, Mabel, was only a year or two older than Florence, and had traveled extensively, both in Europe and in our own coun-
try. Harry and Florence would thus each have sympathetic companions. Mr. Brinkley was delighted with the idea that the young people were all going. He enjoyed their enjoyment of things, as much as he did the seeing of the same things himself. Their youthful enthusiasm, their hearty appreciation of novelties, and their unreserved expressions of interest and enthusiasm, gave him the feeling that he himself was also looking at the world with young eyes.

Harry had a strong liking for his cousin Eliot, and the two were together a large portion of the time during the days before the date of their departure, helping each other in their preparations. Most of the help, to be sure, was rendered by Eliot, who advised Harry what he had better take or not take. "You won't need any umbrella, for one thing, " said he, "for we shan't be troubled by any rain in that country. We may as well take our heavy overcoats to wear the first three or four days if it happens to be cold weather when we want to get off the train and take a constitutional, lont at the boundary we had better send them back by express. You will want both thick clothing and thin clothing, for in Mexico it is possible to change climate three or four times in the course of a day's journey by rail, according to the changes in our height above the sea-level. Sometimes we may start off in the morning shivering in our thick clothes, with zarapes about our shoulders, and inside of a couple of hours we may be wishing we had nothing on but gossamer undershirts! Take along a couple of suits of old clothes, and don't wear any starched shirts on the train. You will find soft flannel shirts most comfortable under ordinary conditions, and silk or cheviot ones in the hot climates."

The day set for going came at last, although it seemed to Harry that it never would come. Harry had been anxious to see "the yacht," as they all now called it, but it did not arrive from Springfield until two days before, and then he was too busy with his final preparations to spend any time in going to the railroad yard, where they were shipping the supplies for the journey and putting on the finishing touches. Harry drove to the station with his father and mother, and Dan also went along to see him off. As they passed into the train-house Harry's eyes were on the alert. "There she is!" he shouted, pointing to the car in the rear of the Pullman sleepers.

"Why, how queer she looks !" cried Dan.
Indeed, it was a most remarkable-looking car. Everybody in passing stopped to look at it. A group of railroad men was standing by. They were inspecting it with critical eyes and pointing out to each other various things that struck them as decidedly new departures.

The feature that first struck one on approaching was its color, a soft creamy white. Harry then noted the large plate-glass windows that extended nearly to the floor in the rear end of the car, while the door itself was filled with a large single sheet of plate-glass in
the same way. This feature is common to nearly all cars of the kind, and is designed to afford good opportunities for observation to those sitting within. The window-curtains both at the end and the sides were all down, but the door was ajar and showed that the interior was brilliantly lighted. Mr. Brinkley was standing on the car-platform with Eliot. He greeted them heartily and took them inside, where they found the ladies of the party already comfortably at home and chatting with some friends who had come to bid them good bye. A good-looking young mulatto standing by took Harry's hand-satchel and was about to help him off with his overcoat when his uncle Lemuel said: "Wait a bit! I believe this is your famous fellow yachtsman, Dan, isn't it? Well, he must be wanting to see what kind of a craft a land-yacht is, and we 'll look her over together, beginning outside in regular ship fashion. So keep on your overcoat, Harry, for two or three minutes. We shall have plenty of time before we start; it is almost half an hour yet, and so we can give Dan a pretty good idea of her."

Mr. Brinkley seemed as delighted as a boy with the Ariadne, as she was called. Harry and Dan themselves could have hardly been more enthusiastic over the Brynhilda when they first had her. Mr. and Mrs. Marsden remained with the ladies, while Mr. Brinkley went outside with Eliot, Dan and Harry.

The white sides of the Ariadne made a marked contrast with the dark Pullman just ahead. "She will attract enough attention by her color alone," exclaimed Harry. "I heard one of those railroad men say, as I came along, "She's a regular white blackbird!" What did you paint her white for, Uncle Lemuel?"
"For comfort," was the reply. "I have no desire to be conspic-
uous, but I am willing to suffer that penalty for the sake of setting an example that ought to be followed. White is the proper color for a passenger car, especially one designed for use in a warm country. If Mr. Pullman would only make that his standard color, instead of the near approach to black that he has made the fashion, he would earn the thanks of thousands of travelers who are now half fried in consequence. Now, being good Yankee boys, I think you and Dan can guess the reason why white is a better color than black."
"Because black absorbs heat and white reflects it, isn't it ?" said Harry.
"Why, that is the reason they paint the new steel cruisers white instead of black!" exclaimed Dan. "A white man-of-war would once have been thought ridiculous, but now it is a regulation color in the navy."
"Yes, and the same ground holds good for a land-craft as for a water-craft," added Mr. Brinkley. "In Mexico particularly, and in our own summer weather, the difference between black and white will make a difference of several degrees inside a car. Do you know that if you take a box and line it with black and put a sheet of glass over it, and then put it where the summer sun will shine into it, you can cook eggs in it or heat water scalding hot? Well, you produce a like effect inside a car by painting it dark."
"I like the idea of having the car plain outside," remarked Eliot. "That is a sensible fashion that is spreading. Many of the railroads have adopted it, and have no more ornamental work on the outside of their cars than you have on this."
"Anything that is made what is called ornamental for mere
show, like the elaborate striping and scroll-work so long customary on the outside of passenger cars, is in bad taste, and the money spent in doing it is wasted," said his uncle. "It does not promote in the least the comfort or convenience of the passengers, and the cost of doing it had better be laid out on the inside. It is a relic of the stage-coaches out of which railway coaches were developed, and its only use is to make ignorant people stare in open-mouthed wonder, as they do at circus-wagons."
"What a queer roof!" observed Harry; "It looks mighty pretty, though!"
"That is another new departure for the same reason - comfort," explained Mr. Brinkley. "I have built the car with a double roof. You see the row of little windows above, along the side, and the spaces between them filled in with open-work? The regular roof is of the Mann pattern, as they call it, instead of the monitor. The curve from side to side gives the largest amount of air-space in the interior, as well as the simplest construction and finest appearance. The rows of dormer windows above, like those in the Boston \& Albany drawing-room cars on the New York Limited, light the upper part of the car as in the ordinary monitor. Over that is a second roof, and the air circulating freely between, the heat from the sun does not beat down into the interior of the car. That will also make a great addition to comfort in hot weather. Now let us step inside.
"I think your Aunt Maddie must be showing the others around ahead of us," said he as they entered and found the room empty. "I hear their voices out in the other part somewhere. This room here in the rear of the car is our parlor. Here we shall sit and see
the country as we speed through it, with fine outlooks through the large windows on either side and behind us. Or when the weather is all right, as it almost always is in Mexico, we can go out on the rear platform and get a still more extensive view. When anybody wants to be alone, they can withdraw to their stateroom; that is, those of us who have staterooms," he added, looking at Eliot and Harry and laughing. "You two boys can have the privilege of the dining-room for that purpose." Although Eliot was twenty-seven years old, Mr. Brinkley always called him a boy, as well as Harry.

The room was a very handsome one, but simple and quiet in aspect; there was not a particle of gaudiness or glitter about it. Everything looked invitingly comfortable. The sides and gracefully curved ceiling were finished in light wood. At the end opposite the door was a desk, with a compact arrangement of an attractively filled book-case above, together with shelves covered with magazines and newspapers. Along the sides were two sofas and several broad easy-chairs. In a panel between two windows on one side was a beautiful water-color picture, and a corresponding space on the opposite side was occupied by an equally beautiful etching. From the centre of the ceiling there hung a cluster of brilliant electric lights; there was also an electric light on a bracket on either side of the desk, shaded to keep the glare from the eyes, and two similar lights forming moveable brackets on either side, so that they could be placed in various positions for convenience in reading. Out on the platform there was also an electric light overhead and a red light on each side. "This car will usually be in the rear of the train and so I took care to have red electric lights for the purpose, so that we should not be bothered by the disagreeable smell of kerosene
lanterns. You probably notice how light and cheerful this room appears. That is on account of the use of light-colored wood in the finish. Dark wood often looks very rich and agreeable, but a room so furnished requires perhaps twice as much candle-power, if not more, to illuminate it as effectively as it would be with light finish. Now we will go on and see the rest of our craft. Here is our stateroom - your Aunt's and mine - adjoining the parlor."

Passing through a door to the right of the desk, they found themselves in a snug compartment, with beds on either side made up ready for the night. The room was furnished in cheerful yellow tints, with which the hangings harmonized. An open door showed a room of the same size adjoining, beyond, and similar in appearance, with the exception that it was furnished in a pale rose-color. "Couleur de rose," said Mr. Brinkley; "that is the way the young: folks are expected to see things! This room belongs to the girls, you know. The door here between will be closed for the trip, but the two rooms are made to communicate for convenience when required."

Harry noticed that sofas occupied the places corresponding to those where the beds were in the first room. "Sofas by day, beds by night," explained his uncle. "You see how much larger it makes this room look? I had the beds made up in our room so that visitors might see just how things were. These two electriclights in each room you notice are moveable and can be attached to various places on the walls, like those in the parlor at the side. For instance, if anybody has the pernicious habit of reading in bed they can gratify it with a beautiful strong light, close to the head, and shaded, without any heat to speak of and no danger of setting them-

selves on fire. Seriously speaking, what a convenience for an invalid! And you can have a light in any instant in the night by just reaching out your hand. I tell you this is an age worth living in !" he exclaimed enthusiastically.
"Now see what a nice toilet-room this is," Mr. Brinkley went on. "Each stateroon has one annexed. The two boys almost jumped on seeing an electric light flash up inside on opening the door, and Eliot laughed: "Ah, you got that idea from London, I see! I saw it at the Metropole last year. We can learn a thing or two the other side of the water, can 't we? in exchange for what we teach them!"
"How in the world is that done?" marveled Dan, with eyes still astonished.
"Opening the door to go in completes the circuit and turns on the light," explained Eliot; the next time the door is opened - that is, to come out - it breaks the circuit and the light is turned off."
"Here we have an extra light the other side of the looking-glass for use when needed. Now just see what a fine stream of water, either hot or cold, runs from these taps without having to work a pump, as on most cars. I will show you how that is done later. It is an idea from some of the new Pullmans. Now let us proceed 'amidships.' "

They went back into the parlor and forward through a narrow passage-way just outside the two staterooms. This passage-way widened out considerably at its farther end and curved to the right, to make place for a compartment opposite the toilet-annex of the second state-room. The door of this was marked: "Toilet and Bathroom." "Al, here is something for you, boys!" said Mr. Brinkley.

As he opened the door there was the same arrangement of electric-lights as in the toilet-rooms. It was a room about the same width as the latter, but several feet longer. It was entirely lined with tiles in a Moorish style, sides, floor and ceiling; even the inside of the door was tile covered. The ceiling was arched both from sides and ends, making a sort of elongated dome. The glazed surface brightly reflected the electric-light in the centre. At the farther end was a large panel in relief, a beautiful group of boys having a merry time in the water. "Chelsea tiles!" exclaimed Eliot. "Jack Low has fairly outdone himself here. And that panel is one of Osborne's best works!"
"America can beat the world in tiles, anyhow!" added Mr. Brinkley.
"But where is the bath-tub?" asked Harry.
At one end of the room were the toilet arrangements, but the rest of the space was empty.
"No wonder you ask," laughed his uncle. "But on a car like this we have to make things compact and save all the room we can!"
"Save room !" called Dan, looking at the empty space ; why-"
"Now all stand close as possible at this end, and I will show you," said Mr. Brinkley. He turned a little wheel projecting from the wall and the greater part of the floor rose up, dividing in the middle and folding back against the wall on either side. Beneath was a large bath, lined with white tiles.
"What a magnificent bath! That beats anything yet!" and Harry nearly shonted with delight. "Why, I could almost swim in that!" he said.
"We shall find this one of the most comfortable features of all on a journey like ours," observed his uncle.
"A bath sunk in the floor is the ideal kind," said Eliot. "It seems like Pompeii, and the pictures by Alma Tadema."
"Outside of the tiling is a preparation of non-conducting material with a space between for the circulation of warm air to keep the tiles from chilling the water. You see these places of open work here in the wall? That is for the admission of air, as hot or cool as we may want it. So we can even take a good Turkish bath here. After the hot air we can raise the floor and take a cool plunge. George the porter has been a Turkish-bath assistant in New Orleans. Here is another ingenious contrivance. This moveable floor is double. Now see how, by a slight change we can have just the conveniences for rubbing down. As he spoke he turned the floor back into its place and then, turning the wheel in a reverse direction, the tiling in the central part rose and formed a reclining-table about six feet long and three wide. "Then there is a shower, in the ceiling, and here on the side are arrangements for douche, etc. So we can take almost any kind of bath we like. And we can splash water all over this room without harming anything. Well, now let us go on. Here is the dining-room, amidships."

As they entered they found the rest of the party just returned from the forward part of the car, which they had been inspecting under the guidance of Mrs. Brinkley. With them were several new arrivals - friends who had come to see them off. "It is perfectly lovely!" exclaimed one of these, a young lady who had been a schoolmate of Florence's.
"Enchanting as Aladdin's palace!" said another. "I feel just
as I do when I go to see friends off on a steamer for Europe! I want to start right off myself!"
"We are going to take a cup of chocolate. Will you gentlemen not join us?" said Mrs. Brinkley.
"Thank you," replied her husband, but we want to give this other young sailor here, Harry's friend, a good idea of our yacht first."

The dining-room was somewhat larger than the parlor and was furnished in a correspondingly simple but artistic style. At one end was a sideboard, and at the other was an upright piano. Over the table there was a cluster of low-hanging electric lights, with a large shade of fringed silk. "I have finished this part in cherry, which gives the room a darker, subdued effect, which is appropriate for a dining-room, where it seems to increase the sociability of a meal by concentrating the light on the table. But with that central cluster raised to the ceiling, and with other various brackets, we can make the room light enough when we gather here for a musical evening, or any other purpose. Now we will keep on to the 'bows' and take a look at the 'galley' and 'forecastle,' as you nautical young fellows would say."

As they passed forward an appetizing whiff struck their nostrils. On the left, next to the dining-room, was the pantry and china-closet, and beyond that the kitchen, where they canght a glimpse of a round-faced colored man, almost as black as the kettles before him, busy before a range, assisted by a spry boy of the same hue.
"Well Sam," remarked Mr. Brinkley, "it smells as if there were no danger of your starring us!"
"I'm goin' to do th' best I kin, sah!" replied the cook, his
good-natured face illuminated with a double row of gleaming large and regular teeth.
"I've no doubt of that, Sam. Only do not give us too much of your good fare."
"I'll try not to, sah!" responded Sam, dutifully.
"So this is your boy Peter," said Mr. Brinkley, patting the little fellow's woolly head. "He seems to be taking hold well. How old are you, Peter?"
"Foh'teen sah!" replied the lad, looking up
 with merry eyes and duplicating his father's grin.
"You'll find that boy good's a monkey-show sometimes; he jess' know's how to cut up shines!" said Sam.
"Well, I expect Harry and Eliot will give him a chance to let himself out once in a while," laughed Mr. Brinkley. "It seems a wonder, boys," he continued, turning to the young men, " how much can be done in a little place like this kitchen. But everything is handy, and the cook can lay his hands on almost anything he wants without stirring. Well, we are ahmost at the end of the ship! Here, next the kitchen, is the heater for the car. We shall hardly need that five or six days hence. Here on the other side are the berths for our 'crew' arranged like those in a regular Pullman, upper and lower. Then we have room for several trunks, you see, and here in the corner is one of the most important things on board." Fenced off behind a railing some machinery was running in a very lively manner, and Harry recognized the familiar smooth hum of an electric dynamo.
"Where do you get your motive power for the dynamo, Uncle Lemuel?" he asked.
"From that little engine that seems to be a part of it. It is a powerful little fellow! It runs by petroleum, which is converted into gas and explodes by an electric spark. From the dynamo the electricity goes into a storage-battery, or accumulator. This gives an extra supply sufficient to last some little time when the engine is not rumning. Here is still another contrivance. You see that little machine beside the dynamo? That is an air compressor, and the compressed air is forced into a tank underneath the floor. The pressure from that air is what makes the water run with such force without pumping, as we have just seen. Oh! I must tell you that this electricity serves another very useful purpose for us, besides lighting. By means of a motor, it runs a revolving fan-blower that brings in a plentiful supply of fresh air when needed. This air supply is conducted in pipes to any part of the car, when needed. I have found that one of the greatest discomforts of railway travel comes from the staguation of the air in a car when it is not in motion ; particularly at night when it is stopping over at any place, or both day and night in making a stay anywhere. Sometimes I have felt almost stifled. That is the reason why most people want to leave their car at once when they get anywhere. But with this simple convenience, if we feel the need of more air at night, all we have to do is just to open the tube at our bedside ; that makes an electric connection, sets the fan in motion, and we breathe fresh air at once."

Mr. Brinkley looked at his watch. "We start in about five minutes," he said. "Well, we have seen about everything now.

There is considerable that we cannot see ; we have to make use of all available space on a car like this. So we have boxes underneath for storing provisions; water-tanks, oil-tanks, etc., in between the flooring. And lockers everywhere."
"All that weight low down is so much ballast in the hold, I suppose," remarked Harry.
"Yes, it gives increased stability, and makes the car run smoothly. Now boys, we will go back 'aft.'"

The others were still in the dining-room. "Just a sip of chocolate for us, and then 'All ashore who are going ashore!'" said Mr. Brinkley.

A moment of embraces, kisses, and farewell words ; then all hastened to the rear door. "All aboard for Philadelphia, Baltimore, Washington!" called the conductor;-" and Mexico!" he added, with a friendly smile at the group on the rear platform.

The stay-at-homes stepped off the car. George the porter turned down the hinged extensions that enlarged the platform on either side over the steps, and then closed the gates, converting the place into a sort of balcony for a safe and pleasant ontlook ; the locomotive bell started its departing clangor, slow and regular, and the train began to move. A waving of handkerchiefs from both sides, and Dan, suddenly thrusting his hand down into his overcoat pocket, shouted in dismay: "Oh! I forgot!" Pulling out a flat package he rushed forward and handed it to his friend on the car: "Here Harry, take this along; and bring it back full!"
"Harry seized it and then watched the scene behind him. Tears came into his eyes as he saw his parents standing there, wawing their farewells, and diminishing as the train receded. Then, as
he lost them from sight he stepped inside and opened the package. It was a large blank-book, nicely bound. On the fly-leaf was inscribed, "Harry Marsden, from his friend and shipmate, Dan Matthews." Next came a title-page of comical design from Dan's own hand. Dan was exceptionally good at caricature, and he had depictured Harry in the course of his journey in a series of adventures and ridiculous mishaps. Eliot, who was standing by, laughed heartily at sight of it. The title read: " Log of the Ariadne."

## CHAPTER III.

UNDER WAY.

OFF at last!" cried Florence, and jumping up gleefully, she seized Mabel and began to twirl, with a " tra-la-la-la-la-la-la!" until a lurch of the now rapidly-rushing train, as it rounded a curve, threw them off their balance and against a sofa, where they lay back laughing as girls can laugh.

George appeared at the door with the words, "Supper is ready, sir!"

Seated at the table with his friends, under the cheery light, and enjoying a nice, home-like meal, Harry could hardly realize that he was on a train, speeding along swiftly. There was but a subdued noise and a slight motion - a gentle tremor and no jolting the heavy car glided along so smoothly.
"We are going to have suppers and old-fashioned mid-day dinners, and light breakfasts, while traveling," said Mr. Brinkley. "We must take care not to make our meals too elaborate; too many travelers commit the error of eating more than they can digest, with their limited opportmnities for exercise. With meals served the way Sam knows how to serve them, we shall enjoy simplicity, and get variety from day to day."

They were all tired after their final preparations, and after supper Mr. Brinkley said to his nephews:
"Now boys, you can settle yourselves for the journey. I think
you will like to take up your quarters here in the dining-room. These sofas at this end will be your beds at night. This part is as good as a separate room when these curtains are drawn. The sofas in the parlor can be made into beds also, but I' think you will like this better, for you have the bathroom adjoining, which will answer all the purposes of a private toilet-room for you two."
"Even better," said Eliot.
"Yes, indeed! How jolly that will be!" cried Harry, with joyous enthusiasm.
"Here are lockers and drawers for your clothing. You can keep a good part of your things here, and it will be much handier than going to trunks and bags. This car is going to be our home for more than three months the greater part of the time, and we want to have everything as home-like as possible."

Shortly after nine o'clock, a yawn from Harry brought a sympathetic response in kind from Eliot, followed by a laugh and a suggestion of bed-time. They found everything made ready for the night by the deft hands of George: nice wide beds, with blankets turned down at an angle inviting repose, in the place of the sofas of half the breadth they had seen in their place.
"Please put your shoes just outside the curtains, and you will find them in the morning all shining like Sam's face," said George, bidding them good night.

Eliot, being a veteran traveler, was drawing the long, regular breaths of sleep in less than a minute after his head touched the pillow, while Harry was kept awake by the novelty of the situation. But the monotonons noise of the train, and the incessant tremor, had the effect of a lullaby, to whose soothing influences he soon
yielded. When the train stopped, however, he awoke at once, as he also did at any marked change in the character of the noise, as when passing over a long bridge with a hollow, rumbling sound. A sleeper almost always thus awakes at the cessation of accustomed sounds, or the occurrence of new ones, until his unconscious sense of hearing becomes used to it, as when a clock in the room stops ticking, or when it strikes the hours. When Harry awoke at such times, at first he could not remember where he was, and fancied himself in bed at home, until he gradually recalled the events of the day before. Then he would lift the curtain of the window close to his head, and peer curiously out through the clear plate glass for a moment. One time he would note the shadowy trees and bushes flitting swiftly, dimly by, and dark streams under the stars slipping away for a brief space through the bare, winter landscape, snowless and iceless. Again he would see the bright whiteness of the electric lights of some large town, and while the train was standing motionless at a station the cessation of the constant, uniform sounds would make the noises made by the banging of baggage, the rattling of trucks over the station platform, the hury of feet outside, the cries and signals of train men, all the more striking in relief against the silence. All trifles like these had the fascination of a new experience for the young traveler, and therefore stamped themselves vividly upon his keen senses ; but in two or three days more he would cease to note them, and would sleep as soundly through them all as his cousin was sleeping that night.

It was far into the night when he was aroused by an unusual clanking and uncoupling of cars, a puffing of locomotives, a switching to and fro, a brief interval of rumbling somehow different from
the sound of going over a bridge, and then silence perhaps for a minute, followed by a slowly recurrent thump swish, thump swish, thump swish of heavy machinery. He could see nothing through the window, for the car lay close to some wall, or other opaque object. So he could not forbear turning on the light at his side, slipping on his trousers and coat over his night-shirt, wrapping himself in his ulster, and thus, half-dressed, going out onto the rear platform to look. He saw an expanse of water behind, with a foaming, undulating track of vague whiteness dividing the dark surface. He knew that they must be crossing the Hudson, on the great railway ferryboat, from Fishkill to Newberg, for he had been closely studying the maps of the route for several days. He stepped down to the deck and looked around. The train was divided into two sections, occupying the double track on the boat. Harry looked up at the tall smokestack, with a trail of black streaming out from the top and sinking slowly down towards the water in the quiet air. Then he looked off and saw the huge, dark bulks of the grand highlands of the Hudson looming up from the river, indistinguishable from their reflections below. At last, after peering into the engine-room for a moment, and watching the great machinery do its powerful work, he went softly back into the car and was sooin asleep again.

It was some hours before daylight when the train came to a stop which lasted so long that it was evident that they were at the end of the first stage of their journey, whereupon Harry fell into a sleep that was not broken until he was suddenly aroused by finding his face covered by some large, soft object that had descended violently upon his head. He pushed it away with his hands, and
heard a hearty langh. Eliot was in his bed opposite, leaning on his elbow, and mischievonsly enjoying the effect of his shot, having flung his pillow at his cousin. Harry promptly flung it back, and Eliot remarking "Thank you," restored it to its proper place and lay back again.
"Half-past seven, Harry ; breakfast in half an hour!" and, as he spoke, the familiar sound of the softly rattling preparations for the morning meal were heard from beyond the curtains.
"Let's toss up to see who has the bathroom first," Eliot proposed.
"No, you go first ; you woke up first!" replied Harry.
"All right; here goes!" and, leaping from bed, he disappeared through the door close at hand. Harry had relapsed into the semiconscious doze of morning when his cousin appeared, breathing vigorously, and sitting on his bedside to dress, called: "Say Harry my boy, isn't it jolly that we can have a cool plunge to begin the day with every morning, just the same as ever."
"Why, so we can ; I wasn't thinking of that?"
"I filled the bath as full as possible, and left it for you, so you needn't lose any time."

Harry jumped up, and entering the bathroom was confronted by the inviting spectacle of the clear water filling the bath of clean, white tiles to within a few inches of the brim. With eyes lighting up like those of a water-spaniel at sight of the element he loves, he pulled off his nightshirt and in a moment was under water and out again, a ruddy glow spreading over every inch of his body, clearing away as in a flash every vestige of sleepiness, making him feel quick and strong, with every faculty attuned to the pitch of health. After a good rubbing, he joined his cousin.
"How stumning a morning dip like that makes you feel," he said.
"Doesn't it though?" said Eliot. "Why, the momentary shock of the cool water is like a smart blow from a friendly hand, instantaneously smiting every part of the body. It acts on every nerve and blood-vessel like a bugle call that arouses a sleeping army into activity. It brings the blood to the surface and starts it into lively circulation. It literally makes you feel like a new man. Many's the time when I've got out of bed in the morning with a dull, used-up feeling, as if I were going to have a siege of indigestion for two or three days, I've had every trace of it cleared away the moment I dipped into a bath of cold water. For me there's no medicine like it."
"Yes, and how tame a sponge-bath seems after you are used to a plunge!" said Harry.
"It is kind of piece-meal work, while a plunge does the whole business in a moment, - takes the whole garrison at once, instead of by detachments."
"But I know some fellows who say they have tried it, and it uses them up," said Harry ; "I don't see why it should."
"Probably because they haven't blood enough, and so the shock doesn't bring reaction enongh to comnteract it. Only those of a vigorous constitution can stand it. But some old grannies say that daily bathing is harmful and washes away the strength, - as if strength were some substance that could be dissolved in water, like sugar or salt! It depends on the kind of bathing. Cold baths for a strong person are invigorating, but frequent hot baths are debilitating. The old Greeks, who understood the meaus of healthful bodily development probably better than any other people, knew
the virtues of cold water bathing. Did you ever hear of Appolonius of Tyana?"
"Do you mean the one Apollinaris water was named after?" queried Harry. "I mean, you know, that chapel on the Rhine, where the spring is."

Eliot laughed. "No, that was some old saint, I believe. Appolonius was a wonderful Greek who lived a little before the time of the Saviour, and did a great deal to improve the morals of the pagan world. It is thought by some that his mission was to prepare the people for the reception of Christianity, and probably the influence of his teachings, which was deeply felt through the greater part of the Roman empire, made people ready for the Christian doctrine. But what I set out to say was that he was one who held that 'cleanliness is next to godliness,' and he believed in the virtue of coldwater bathing. One time he went to preach to the people of Ephesus. Finding them lamenting that something had happened to the hot baths, so that they could not use them, he told them that the gods did not regard them as fit to die yet, and so had cut off their supply of hot water, that they might be compelled to use cold and keep in good health!"

By this time they were both dressed. They found the rest of the company in the parlor.
"Well boys, how did you pass the first night out?" was Mr. Brinkley's greeting.
"This is the kind of 'yachting' I like" replied Eliot; " it agrees with me better than Harry's sort."
"To even up things, Harry ought to be 'rail-sick' on board the Ariadne, I suppose," langhed Mr. Brinkley.
"No danger of that, thank you," responded Harry.
"We arrived safe in our first port on time this morning you see," said their uncle. "It's one of the greatest land-harbors on the - no, I can't say on the coast, can I ? Well, on the rail, then. Lot's of craft here, and some fine yachts, but nothing like the Ariadue, eh?"

They were in the yard of the Pennsylvania Railway at Jersey City. Although they had left Boston on the Washington express, they were not going by way of the national capital, but had come with that train that they might make convenient connection with the Pennsylvania. Mr. Brinkley had some business in New York, and they were to stop over for the day, leaving in the evening, and going by way of Chicago and New Mexico.

Mrs. Brinkley and the young ladies came in, evidently dressed for a day of shopping and calls, and they all went in to breakfast.
"Somehow this seems perfectly outlandish," remarked Florence, " breakfasting here in this pleasant style, with all this backing and filling of trains, and ringing of bells, and tooting of whistles going on about us!"
"Wait till we get to Mexico, if you call this outlandish," commented Eliot.
"This seems a queer way to come to New York from Boston. Being here in Jersey City gives me the feeling of having just arrived from Europe on one of the North German Lloyd steamships," said Mrs. Brinkley.

After breakfast the party separated for the day, the ladies taking the ferry-boat for New York with Mr. Brinkley, while Eliot and Harry were to look around by themselves, going first to see one of
the splendid great new German steamers at the pier in Hoboken, not far away. At seven o'clock in the evening they were all together again at supper, well tired after a day spent busily in running to and fro from one end of the great city almost to the other. Then at eight o'clock the "Pacific Express," with the Ariadne in tow, rolled slowly out of the station and was soon speeding smoothly westward.
" I am sorry for one thing," said Harry, " and that is that we are going through Philadelphia at night, and I shall see nothing of it."
"Well, my boy, we'll have another chance at that," said his uncle. "Perhaps some day we will take in the great cities of our country on a special cruise."

Harry was thinking of sitting up until they reached Philadelphia so that he might see something of it ; but, as Eliot was nodding and he was yawning himself, he gave up the project and went to bed. That night he was only half-conscious of the train stopping at some station here and there, until the prolonged reduced pace, to which the motion at last subsided, aronsed him and made him surmise that they were drawing in to the great Quaker city. He raised his curtain, and saw the gleam of the lights on the bridges reflected in the dark water as they crossed the Schuylkill, the twinkle of gas-lamps adown straight and level London-like streets, running off at right-angles from the elevated track, until they finally came to a stop in a great cavernous station which, by the part of it visible before him, he could see must be very broad. While the noise of scurying passengers and rattling and banging of baggage filled the air, and he was pondering whether he had better get up and take a look about, he fell asleep.

## CHAPTER IV.

THE FIRST OF THE CRUISE BY DAYLIGHT.

66 TIME!" sounded in Harry's ears. He opened his eyes drowsily and saw Eliot standing over him, just returned from the bath.
"Ahead of you again!" langhed his cousin. "I hated to deprive you of your turn first, but then you looked so peaceful lying there sound asleep it seemed a pity to disturb you. But you don't want to lose any more of this day than you can help. Just look outside!"

Harry lifted his curtain and the sunshine came streaming in. "Oh! what a morning!" and he was out of bed before one could say "Jack Robinson." It was not long before all were out on the rear platform, enjoying a breath of the pure morning air. "Why this is almost Mexican weather!" Eliot exclaimed.
"That is the superlative of praise from Eliot," langhed his sister; " when anything pleases him particularly he says it is almost as good as Mexico!"
"Hurrah for Mexico, if it is going to be like this!" cried Florence.

Mr. Brinkley smiled approvingly. "Yes, this weather is a good sample of the Mexican table-land climate, cooled down somewhat on its way northward, but it is only a sample, clipped off of a great endless roll of climate that Mother Nature keeps spreading out over
that part of the continent from year's end to year's end, almost. Now and then she sends a bit of it up North for us, to let us know what she has down there!"
"The trouble is, that we never know here in the North what the weather is going to do next!" said Mrs. Brinkley.
"Oh, yes we do," replied her husband. "We can be sure of one thing, and that is, that it is going to change! Now, instead of enjoying a day like this while it lasts, a lot of people get melancholy over it and call it a 'weather-breeder' and lose all the comfort of it in thinking how uncomfortable they are going to be on the unpleasant to-morrow!"
"For my part," said Mabel, "I am going to get all the pleasure out of this glorious weather I can, and if it is bad to-morrow, then I am going to take comfort in thinking of the climate we are going to enjoy for weeks to come!"
"Spoken like a philosopher, my girl!" said Mr. Brinkley.
They were climbing the Alleghenies. The great undulating slopes, with somber green mantles of pine, hemlock, and other evergreens covering their bare shoulders and mingling with their sober winter garb of russet and gray, stretched away in the distance, and even the farthest summits, though dimly blue, were sharply outlined in the clear, still atmosphere. The air was bracing, but the sunshine was warm, and the whole broad landscape seemed to be laughing in the flood of genial light. The track below, with its evenly distributed and perfectly ordered bed of rock ballast, seemed to be slipping backward beneath them as they ran smoothly on, and, as the train whisked round curve after curve, new vistas were continually opening out.

So all the morning they were kept busy rumning from side to side, or out onto the platform, according to the lay of the landscape, and the books that some of them had taken in hand were hardly glanced at. Eliot and Mabel assumed the role of cicerones to their untraveled younger companions, and Mrs. Brinkley beamed approvingly over the enthusiasm of the young folks.
"Oh, what a tremendous curve!" shouted Harry; "that train over there that's just come out of the tunnel is going along in the same direction as we are, so that we seem to be racing it side by side!"
"You 'll see it whisk past us in a minute like a shot," said Mr. Brinkley. "This is the famous Horse-Shoe Bend."

Harry looked admiringly down the deep valley and up the steep mountain slope, but Eliot said, semi-derisively : "Just wait till we get to Mexico and see the chain of curves we shall have then. This is a mere one-horse-shoe bend beside them."
"If Eliot had only been to heaven, now," called Mabel, "he would tell us, every time we felt happy, just to wait until we died if we wanted to know what it really was to be happy!"
"Why, there are $\log$ houses!" cried Florence, when they were some ways further on. "I had no idea we should see $\log$ houses before we got out West or down South. "And those queer-looking women with blue sugar-scoops on their heads! You can 't see their faces at all! And such gaunt creatures, with their dresses making a straight line from shoulder to foot!"
"That is the regulation female garb for the country regions all the way from the Alleghenies to Colorado," explained Mabel. "Even in our enlightened land there are regions where the scepter of Queen Fashion has no power."
"With those poking sun-bonnets and lean figures they always make me think of walking guide-posts," observed Eliot.
" But Pemnsylvania!" cried Florence; "I had no idea there was anything so behind the times here, when it is in the East!"
"If being behind in fashion were the only thing to find fault with in Pennsylvania I wouldn 't have a word to say," said Eliot, his face darkening and eyes kindling. "But when it comes to being behind in civilization ! It is bad enough almost anywhere, but what do you think of a State that allows little children to be sent to work in the coal-breakers instead of to school, as soon as they get old enough to be sent to
 school, - to work all day in the choking black dust, to be wrecked for life, body and soul, if by chance any of them live long enough to grow up!"
" $O$ horrible! horrible !" cried the others. "But is that really true?"
"As true as gospel ! " replied Eliot.
"But why don 't they stop it?" asked Harry,
"Because the parents are so poor they can't live without putting their little ones to work almost as soon as they can toddle, and the companies that employ them want to make all the money possible."
"But that ought not to be," said Florence.
"Certainly not," responded Eliot. "But what will be the future
of a State where the lives of the children, who are the material for the coming men and women, are allowed to be wasted in that way? Why, every farmer knows what would become of his livestock if his colts and calves and lambs were unfed and sickly."
"But I thought Pennsylvania was an intelligent State!" said Harry.
"Does that look like intelligence?" asked Eliot. "How can we expect a State to be intelligently governed when so many of its people are growing up in ignorance? But in Pennsylvania they are human, as elsewhere ; a State with such a grand history ought to have a grand future. Some day they will get aroused and wipe out the disgrace of an evil as wicked as negro slavery was!"

On and on they went through the mountains, down the narrow valley of the Conemaugh, where they saw the traces of the great Johnstown flood. In places the landscape was so scarred that it seemed as if Nature's hand would never heal it. But the city, where a few months before thousands had been swept out of life in an instant, appeared to have recovered itself wonderfully, and rebuilt on every hand, it looked remarkably prosperous.

Before one o'clock they had descended to Pittsburg - busy, growing', and covered with grime. "I should think the place had been named on account of this black pit of a valley, instead of for the British statesman," Harry observed. Although the use of natural gas had cleared the air remarkably in the past few years, it still seemed very smoky to his Eastern eyes.

Then, on through the afternoon sunshine, skirting for a while the yellow Ohio river, where for a rarity the odd-looking, bluntnosed and stern-wheeled steamboats were now and then to be seen
with long lines of coal barges behind in tow, for there had yet been no ice this remarkable winter, and navigation was still open.
"Those steamboats look like wheel-barrows turned upside down and going backwards!" said Harry.

Steadily on they sped through the great state of Ohio, amid prosperous farms, winding among rolling hills abounding with woods, and stopping at large towns where the many tall steeples were rivalled in height and surpassed in number by the factory chimneys that seemed like pillars supporting a dark canopy of smoke hanging over each place. "I had no idea there were so many large places out here," said Harry; "it seems as thickly settled and solidly built as New England."
"I think that nearly everybody who comes West for the first time expects to find things half wild and in the rough," remarked Eliot. "But we must remember that Ohio is a pretty old State, and the people here never think of themselves as being ' Out West.'"
"The country, too, seems like New England, only more mellow and expansive," said Mabel.
"I should think it would be beantiful in the spring and summer," said Florence. "Only I don't like the looks of that muddy water standing and rumning everywhere. But they don 't appear to have anything else. How can people ever drink it!"

As dusk came on it seemed as if some holiday celebration were going on, so frequent were the illuminations from the flame-belching chimneys of iron-furnaces and from the exposed interiors of rollingmills, where, as they passed, they could see the dazzling dots of the white-heated masses of molten metal revealed through the open doors of furnaces. The gangs of men who pulled it about into

long, wriggling streaks looked like dancing imps, black against the fierce light, and the gleaming bars that they were handling seemed hissing serpents, as they changed slowly from luminous white to orange, and in a sullen red glow faded out into darkness.
In one region through which they passed, instead of electric lights or ordinary street-lamps, the towns had what looked like torehes stuck into the ground with ragged pennants of flame lazily waving in the still night air. Here there were no smoke-clouds to give lurid reflections, for natural gas was the universal fuel, and everything was bright and clean.

While the young people were looking out at these sights something startling occurred that made them all jump with fright; all except Eliot, who, having been that way before, knew what was coming and was prepared to enjoy the consternation of his companions. As the train was moving slowly through the fields in its approach to a large town, suddenly there shot from a tall, thick pipe standing not far from the track, a tremendous great mass of flame, with a roar like that of a hundred thousand steam boilers blowing off at once, as Harry afterwards expressed
it. The young ladies shrieked, and for a moment Harry felt as if his heart were coming up into his mouth. The roaring grew even louder as the flames shot up still higher. The fire-mass was dancing upon the top of a grayish stream of vapor that rushed out of the pipe with tremendous force for about twenty feet before turning into a blaze. It was like a gigantic bouquet of flameflowers, of the most vivid tints, constantly changing, - orange, yellow, crimson, purple, green, violet, and blue, - with huge tongues licking the darkness and sheets of fire flapping downward, as if savagely seeking to devour some one below. For a long distance around everything was illuminated as brightly as in the light of a conflagration.

It is only a natural gas well!" explained Eliot, still laughing at their fright. "They 'shoot it' every time a through train passes by in the evening, so as to advertise their town."
"It is the most awful thing I have ever seen !" cried Mabel, still holding her ears.
"That's the most magnificent fireworks in the world!" shouted Harry.
"Absolutely gorgeous!" Florence exclaimed.
"That well is one of the biggest around," said Eliot. "It can send out ten million feet an hour, and the pressure is so great that it condenses the gas and makes it visible in that gray stream you see, like water from a fire-hose."
"Why, if they only had it in Boston, at a dollar a thousand it would be worth a thousand dollars an hour!" calculated Harry. "If they could only keep up the price with such a supply at hand!" he added.
"They wasted the gas out here terribly at first," Eliot went on. "They once believed that the supply was inexhaustible, but now scientists generally agree that it will not last a great many years, and so they have grown more careful not to waste it. It's use in these places out here has made a wonderful change. It has so increased general convenience and comfort, besides being so economical that even if the supply of natural gas should be exhausted they would never return to the use of coal, but would manufacture gas for fuel. Gas, I believe, will undoubtedly be the fuel of the future. It can be made for a few cents a thousand."
"What a grand thing it would be, if everywhere they could only get rid of coal-dust, ashes, and smoke, as they have out here!" said Harry.
"In this city, for instance, you will not find a coal-wagon or wood-cart in town," said Eliot. "And in lots of houses you will see the shovel from the coal-bin hung on the parlor wall, gilded and decorated and tied with ribbons, with the inscription, 'Laid to rest on January 9, 1888,' or whatever the date of the introduction of natural gas into the house may have been."
"How perfectly delicious!" cried Florence.

## CHAPTER V.

## IN THE HEART OF THE CONTINENT.

## ${ }^{6} S^{0}$ that is Chicago off there!"

It was the next morning, and they were looking out over what seemed an endless expanse of land, as flat as the ocean level. The horizon line was broken by clumps of buildings here and there, with factory chimneys thrusting themselves up into the gray sky and increasing its sombreness with their black fumes.
"Yes, where all that smoke is," responded Eliot to Harry's remark, and referring to a thick, black clond in the distance towards the northwest that hung down on the land and covered it like a pall, obscuring the view in that direction.

They had been standing still for some time. It was early daylight. Mr. Brinkley came out of his stateroom and asked :
"What is the matter? Here it is nearly eight o'clock, and we should have been in Chicago at 7.05. Have we 'run aground,' Harry?"

Harry laughed to hear the nautical term and replied in kind:
" Oh, no ; I've just been out to 'take an observation.' Nothing. has happened to us, but there's the wreck of a freighter ahead, blocking our channel ; that is, there's a freight train smashed up on the crossing just out there, and we've been waiting here for orders. The conductor just told me that we were going to run back a piece and switch over onto the Grand Trunk, going in over their track for some ways and then getting back onto the Fort Wayne."

Just then they started, and they were soon within the limits of the great city that is spreading its huge bulk out over the prairie, the rows of little wooden houses huddling closer and closer as they proceeded. At last they saw a lot of masts rising over the houses, and came close to a narrow strip of water full of steamers and tugs hauled up for the winter.
"This Chicago river has a greater commerce than any other body of water of its size in the world," said Mr. Brinkley. "Chicago is the first port in the country in respect to tomage, and second only to New York in number of vessels arriving and departing.

Harry looked at the craft with critical eyes: "All those steamers, with the smokestack way astern, and built so straight up and down behind, have a clumsy sawed-off look. One of the freight boats between Boston and Gloncester came from the lakes and is built just like that, and they call her the 'Junk of Pork' all along the coast!"

As they passed through the station, on their way to drive to a hotel, Florence gave a shudder at the sight of the gaudy decorations and declared it " atrociously Western."
"But Chicago ideas have changed in the past ten years ; I'm a great believer in Chicago," replied her father. "They thought this station splendid when it was built; but now they have some of the finest modern architecture on the continent here in this city. A pity they coat it all over with soot, though !" he added, as they drove away through the streets darkened with the heavy clouds of bituminous smoke that came dropping down upon them. They were going to spend the day looking over the city, and Mr. Brinkley had arranged to have the Ariadue taken around to the Dearborn


THE WRECK.

Street station, where they were going out at six o'clock by the "Sante Fé."

Eliot and Harry went by themselves to roam over the city together and see what interested them.
"Yesterday was a weather-breeder, true enough," grumbled the former, buttoning his ulster close around his neck and turning up his collar. "This clammy air, filled with soot, makes me sneeze and cough and shiver, all at once."
"It seems like a Boston east wind with the salt taken out of it!" said Harry.
"The cold air from the lake acts on these shores like a refrigerator! There's old Michigan now!" and Eliot pointed to a leaden expanse at the end of the street. "It seems strange to see it in January without any ice! I've seen it towards the end of May, white with ice-cakes as far as the eye can reach, and making the air of the city like that of March, while ten miles out, going west, I found it as balmy as June, with vegetation several weeks in advance."

But, when they came together at the train that evening, and discussed the events of the day at the supper-table while they rolled westward through the darkness, Mr. Brinkley found all the young people enthusiastic over Chicago, in spite of its climate and its smoke.
"Harry and I marle a break for the bathroom, though, as soon as we got aboard. We felt like chimney-sweeps," said Eliot. They had the genuine American admiration for the energy, enthusiasm, and ceaseless activity whose results were manifest in the gigantic growth and achievements of the great city. Eliot, as an actual
engineer, and Harry, as a prospective electrician, were particularly interested in the public works. "They go at things in a practical, common-sense way," said the former. "They are going to spend I don't know how many millions on a great system of sewerage and water-supply."
"And I noticed that they have a fine system of electric lighting, and run all the wires underground, although the companies in Boston say they can't do it; it is too dangerous!" said Harry. But the chief engineer, whom we had a talk with at the city works, says it is perfectly safe and they never had an accident. The thing of it is, the city runs the lights itself, and does it for a quarter of what Boston pays the companies. He laughed when we said we were from Boston, and said, 'We don't celebrate our Thanksgiving out here by burning down a large part of our business section, in consequence of overhead electric-light wires!'"
"When do we cross the Mississippi, father?" asked Florence.
"At about one o'clock in the morning. We cross to Fort Madison in Iowa and make almost a bee-line for Kansas City, cutting across the southeastern corner of Iowa."
"Oh, dear!" Harry sighed; " the trouble with me is I want to see everything. Here I haven't seen a speck of Indiana, and only just this patch of Illinois around Chicago, and now we are going to cross the Mississippi in the middle of the night, and I shall not see a bit of Iowa, either!"
"Never mind," said Eliot consolingly, " you can say you've been there all the same, and that is the main thing; all the country out this way looks alike in the winter, so it is just as well to pass through it fast asleep! And although you miss the Mississippi,
you'll see the Missomi in the morning, which amounts to the same thing you know, for the geography tells us that is the main stream, and it is always reckoned so in making out the Mississippi the longest river in the world."
"And besides, we shall see the Mississippi where it is largest, when we cross it at New Orleans on our way back," Mr. Brinkley added.

Harry resolved, however, to look out at the Mississippi when they came to it ; but unfortmately for his determination he was now completely accustomed to sleeping on the train; nothing in the usual line of occurrences disturbed him, and being healthily tired after his day in Chicago, the slow crawling of the train over the long bridge across the "Father of Waters" did not awaken him. In the inky darkness of that night, he would not have seen any more than an uncertain gleam of the dark current flowing below, had he lifted the curtain of the window beside him.

Shortly after daylight the next morning they crossed the Missouri, and while they were at breakfast the train ran along the southern shore for something like half an hour, and they watched the swift and turbid current of the great stream from the windows as they ate.
"The ' Big Muddy' they call it out here," said Mr. Brinkley.
"And a most appropriate name it is!" exclaimed Florence. "It looks like a river of pea soup. I don't see how water can be any muddier."
"It can, though," said Mabel. "You ought to see the Colorado! It is absolutely red, and when I crossed it at the Needles, on the way to California, it looked like liquid vermillion."
"They tell a story about a man who fell off a steamboat here on the Missouri in the night," said Eliot. "He swam and swam, carried by the current, and at last gave up, exhausted; but when he went to sink, he found himself standing with the water below his waist. He had been struggling in less than three feet of water ever since he fell overboard, and he was so angry at his waste of exertion that he forgot to be thankful for his escape!"
"What a splendid train this is!" said Florence, who, with Harry, had been forward exploring, according to a custom which they had adopted of making a daily tour of the cars. "It seems like our car enlarged into a whole train."
"Yes, it made me think of being on an ocean steamer," said Harry. "The vestibules make the whole train like one continuous car, and the different cars seem like the various saloons of a steamship; so we are now like a yacht in the tow of a great steamer."
"Yes," said Mr. Brinkley, " they have got the luxury of travel by rail reduced to a science, and we, in our car, are not so very much more comfortably fixed than those in the Pullmans of this train, except that we are by ourselves and can stop and go on as we may please, - beside the various little improvements I have introduced in construction and arrangement, which will probably be generally adopted before long. But here we are with Kansas City in sight."

They had left the river and were skirting the city around to the southward, by the " Belt-Line Railway."
"Kansas City is almost a second Chicago in its wonderful growth," observed Eliot. "The real name of the place is the 'City of Kansas,' and it was named before Kansas, the State. It seems remarkable that the great centre of commerce for that State, bear-
ing the same name, should be just over the line outside its limits, in Missouri. But a considerable portion of the city is in Kansas. The name of that part is ' Kansas City, Kansas,' and it joins the main city, so that a stranger could not tell where one ends and the other begins."

They drew slowly into the Union Depot, wending their way through such a maze of tracks that it seemed ahnost wonderful how they could be kept from going astray. At the station there were numerous trains drawn up, placarded to depart in every direction. Mr. Brinkley proposed that they all get out for a morning constitutional along the platform of the station. The air was soft and summer-like. The young men declared that overcoats were superfluons in weather like that, and refused to put them on.
"What a day for January!" cried Mabel. "This seems really Southern!"
"That must be becanse Missouri is a Southern State!" remarked Harry.
"Yes, and to-morrow," said his uncle, " as likely as not the mercury might drop below zero! The climate runs to extremes out this way."

A line of high, clay bluffs capped with a dense mass of buildings, towered above the level where they were standing. Leading thither, with inclines, trestles, etc., were varions lines of cable-cars.
"The main portion of the city lies up there," said Eliot. "Down here on the river-bottom, as they call it, are the factories, packing-establishments, stock-yards, and the like."
"It is very much like Quebec, then, with its Upper Town and Lower Town," said Mabel.
"How I should like to run up there through that place and see how it looks on the other side!" Florence cried, pointing to a tunnel opening in the face of the bluff.
"We can do it if we like," said Eliot. "The cars are running all the time ; we have nearly half an hour before the train starts, and we can get up there and back in a few minutes."
"Let's go, then! Do you hear what Eliot says, father? Can't we?"

Mrs. Brinkley gave a sign of alarm at the idea of their going so far from the train ; but her husband said he would trust them with Eliot, and off the young people scampered in great glee to the elevated railroad station close by. A minute more and they were on board a cable-car and going up the incline towards the tunnel.
"They have hardly anything but cable-cars all over the city now," said Eliot. "Perhaps they are the best system for a place where they have such steep inclines as this, but electricity is far more practical, and in Lynn the electric-cars run up a grade of twelve per cent, or six hundred and twenty-four feet to the mile. There is a most extravagant waste of energy in the cable-system, for it takes something like eighty-five per cent of the power to move the heavy cables, with their length of several miles of steel rope. With electricity the economy is almost in reverse ratio. Electricity acts on a principle similar to that of a belt or cable, in the moving of cars, but it is so subtile in its action that the mysterious force slips along through the conducting wires with comparatively little friction. The waste of power in the cable-system is in something like the same proportion as the waste of hman energy in doing the work of the world, where it is estimated that something like ninety per
cent. of the exertion is wasted in overcoming the friction caused by so many persons working at cross purposes. The electric-system is like the smoother way the work of the world will be done some time when we learn how to plan things in greater harmony. There is nothing like thorough organization for doing things promptly and well."

They had passed through the tunnel and shortly after their car came to a full stop at the end of its route. They stepped out, and looked up and down the streets that crossed at right angles.
"What splendid great high buildings!" Florence exclaimed.
"Yes, they give the distinctive character to Kansas City more than the similar great structures do to our Eastern cities. It is a most stately and substantial looking place. The ordinary kiud of Western building, put up in the 'vernacular' style, as the architects say, is a cheap and ramshackle affair, merely thrown together. So when the wonderfal growth of a place like this demands first-class buildings, it is an easy thing to clear the ground of the old rubbish. That is the reason why Chicago and Kansas City can change their architectural character and take on a more uniform appearance of rich massiveness with greater promptness than New York or Boston, where the old buildings are costly and elaborate in comparison. But we must be starting back for our train!" said Eliot, looking at his watch.

In a few minutes more they were standing in the pleasant sunshine on the " quarter-deck" of the Ariadne, as they had called the rear platform, watching the busy scenes around them as they again began to move westward.

## CHAPTER VI.

OVER PRAIRIES AND PLAINS.
"'HERE we are in Kansas!" cried Eliot, a few seconds after they had started. "That street there is the boundary."
"The land of John Brown and the border war!" said Mr. Brinkley. "This State has had a notable history and a wonderful growth. It seems to have compressed the experience of centuries into the period of a generation!"
"That is the advantage that a new commmity has now-a-days, starting on a fresh soil," said his wife. "In these days of quick communication, and interchange of ideas as well as materials, it has the benefit of what all the rest of the world has been learning for ages."
"There - there is the Kaw!" called Eliot, pointing out a large stream on the right. We shall follow that all the way to Topeka."
"Why, it is a good large river!" exclaimed Harry. "But how is it I never heard of it before? I thought I knew my geography particularly well. I stand 100 per cent. in that, I'd have you know, old man!"
"Its real name is the Kansas, but they all call it the Kaw out here," Eliot explained.
"O yes, of course! And it flows into the Missouri at Kansas City. But why do they call it the Kaw?"
"It is simply a corruption of the name Kansas, which was originally pronounced Kansaw, just as Arkansas today is prononnced 'Arkansaw,' by the solemnly-enacted law of the State which got disgusted with our Eastern insistence on rhyming it with Kansas. Both names came to us from the Indians by way of the French, who formerly, you know, owned all this country in the Mississippi valley, and that is why, like Illinois, they end in a silent $s$. The Americans who came out this way didn't have very quick ears, apparently, for they at once corrupted Kansaw into Kaw, and have gone on mispronouncing every Indian and Spanish word they could get hold of, ever since. As both the city and the State of Kansas were named from the river, it is a wonder they didn't call them Kaw too! If chey would only call Kansas City, at any rate, Kaw City, they might save a good many misdirected letters from persons who think it is in Kansas instead of Missouri. They might make one word of it and call the place Kawcity, which would make it formed after the style of 'capacity.' That would be quite in accordance with their expansive ideas, since they hold that the capacity of their place is unlimited, which it practically is so far as population is concerned, judging by the square miles of new 'additions' the speculators laid out during the recent boom! They are quick to take a hint for an original name here in the West and I've a great mind to suggest it. They have a good many more strangely compounded names out here - Texarkana, for instance, made up out of Texas, Arkansas and Louisiana!"
"But," objected his sister, "Kawcity would rhyme with 'Paucity,' and that would not please a place that is the very centre of abundance, as well as the 'Hub of the United States'."
"And then the wicked Chicago papers would be sure to catch on to the chance to work up a.racket on the hands of the Kansas City women after the style of the girls'-feet dispute with St. Louis, and would call it 'Paw City,'" rejoined Eliot.
"But you said the real name of the place was the City of Kansas, and so they would have to call it the City of Kaw," put in Harry. "That would be supposed to have something to do with the crows, and for such a get-up-and-get kind of people to be taken for croakers would give them cause to complain!"
"You horrid boy!" cried Florence ; "I'm sure you are getting under the influence of Kansas humor already and have been reading some of it. Say, Mr. Howells told father the other day about a new humorist they've got out here, and he's brought the book along!"
"That man who says he'll 'wear Arcturus for a bosom-pin'? His poems are immense. It's the real Kansas style of saying things. Think of that 'Kansas zephyr' that turned the barking pup wrongside up and inside out and then

> Calmly journeyed thence With a barn and string of fence!
"I see he writes under the name of 'Ironquill,' which, perhaps, is meant for ironical," said Florence.

Mr. Brinkley joined the group. "The Missouri river, that we have just left," he said, "was the frontier of the ' Wild West' until after the war, and now there is hardly any more 'Wild West' to be seen anywhere. The old Sante Fé trail started from the Missouri at Kansas City, and that was what made the beginning of that place. The steamboats would come from St. Louis and leave their cargoes at the little landing to be taken in 'prairie schooners.' You see,

Harry, they've had the idea of land navigation out here for a good many years and we are now yachting it over an old line of commerce laid out by Nature, something like the track of the trade-winds for ships coming from the Old World. Well, as I was saying, the prairie schooners took their cargoes over the famous old 'Santa Fé trail' for nearly a thousand miles into New Mexico through the wilderness, across the prairies and plains, to supply that country with goods from the East - which cost pretty high by the time they got there. Those were the days of romance and adventure in the wild West, - Indians, wolves, buffalo, wild horses, antelopes, hardships, starvation, and all the rest of the material you find in the books of Mayne Reid, Ballantyne, and other books of the kind."
"Isn't it remarkable that this main line of the Atchison, Topeka \& Sante Fé Railroad follows close to the Sante Fé trail nearly all the way?" said Eliot. "It shows how men, in striking out the' easiest way to get across country, and going haphazard, will instinctively follow the lines that an engineer would take in his deliberate survey."
"I see all the locomotives and freight-cars on this railroad are marked 'Santa Fé Route,' " Harry observed.
"Yes," replied Eliot, " that is what you might call the 'trademark' of the line, the nickname, that has been adopted by the management, and is often something quite different from the name of the company. There is the 'Sunset Route,' for instance, the 'Monon,' the ' Nickel Plate,' the ' Big Four,' the 'Panhandle,' the ' Bee Line,' the ' Burlington Route,' the ' Frisco,' etc."
"But everybody calls it the 'Atchison' in the East."
"Yes, and on the street they call it 'the Atch.' Out here
everybody calls it the 'Santa Fé.' A railway often quite outgrows its name. Atchison, its original starting point, is a city of not much importance, and Sauta Fé, its original objective point, is now at the terminus of a little branch off the main line. The use of Santa Fé in the name of the little coal railroad of fifteen years ago gave it an absurdly ambitious sound in the ears of people out here, and, except to a few sanguine 'dreamers,' as they were called, the idea of ever building the line to the almost mythical capital of New Mexico was as visionary, as impracticable, as 'Utopian,' even to the big-notioned people of Kansas, as Bellamy's ideal in 'Looking Backward' seems to our good friend General Francis A. Walker, for instance. After all, the 'dreamers' are sometimes the most practical people in the world."

When they reached Lawrence it was pointed out as the historic place that was the centre of the colonization movement from Massachusetts started by the Emigrant Aid Society that made Kansas a free State, and raised the excitement which was one of the direct causes of the great civil war.
"Why, these hills around here are almost as high as those around Boston," exclaimed Florence. "And this is a prairie state too! I declare it's a downright imposition! A country that is composed of prairies has no right to put on such airs and have hills too!"

They all langhed and Eliot said: "They are rolling prairies, and when you stand on one of these long land-swells and look off over the country, you see that it is of a general level ; it almost seems as if you were at sea, with its long waves rising and falling about you, except that the undulations are motionless. In mid-
summer you can fancy it is in motion, though, with the broad reaches of grain and grass waving in the steady wind, and the shadows of the clonds moving across the surface, sometimes singly, sometimes in batallions, and visible for miles and miles away. From down here by the river those prairie swells, as the stream cuts its way through, look like ranges of hills. Lawrence here is a beautiful, quiet place, thoroughly New England in character, and seems like one of our Eastern college towns. There is a charming view off over the valley from the high ground where the State University stands."

It was noon when they reached Topeka, the State capital, and they went out to walk up and down the station platform while the passengers were at dinner. "Why, there is my old friend Colonel Johnson," exclaimed Mr. Brinkley, hastening forward and cordially seizing the hand of a gentleman who was getting out of a carriage.
"And if there isn't Charlie Gleed!" cried Eliot, at sight of a younger man coming from a street-car that had just stopped at the station. "O, Gleed!" he shouted, and his Topeka friend stopped in astonishment at the sound of his voice.
"If you didn't accent the ' $O$ ' so strongly, I should think everybody here in the West was Irish, and the descendant of Trish kings at that!" said Harry, with a laugh. "I notice men when they call out to each other, ever since we left Chicago, sing out: 'O Smith! O Jones! O Brown!'"
"Yes, that is the universal style of accosting out here," Eliot replied.
"Well, Sampson, old fellow, where did you drop from?" said his friend, coming up.
"Off on a yachting-cruise to Mexico with my uncle, Mr. Brinkley."
"Yachting? Well, this is a good season for it! No ice in the Kaw yet! But you'll have to dig a canal from here on, or take to dry land! But what do you mean by yachting? - is that one of your new Boston notions?"
"On the contrary, it is one of your Western ideas that we benighted Easterners have taken to! Land-yachting, I mean. Do you see our craft there?"
"What, that snowy 'special?" Well, she does look different enough from a Pullman to be called a yacht, or anything else you choose. No wonder there's a crowd of train-hands about her, looking as if she had dropped from the moon."
"But where are you going, Charlie?"
"Just running up to Wichita with the Colonel on some business."
"Good enough! Then of course you'll keep us company as far as Newton. I see my uncle has taken the Colonel inside."

When Mr. Brinkley introduced Colonel Johnson to the young people, he said: "We have a rare historical specimen in the Colonel, you must know - an unico, as the Spanish say - the only one of the liind. In other words, Colonel Johnson was the first white child born in Kansas."
"Born in Kansas?" exclaimed Mrs. Brinkley, semi-serionsly. "I didn't know anybody was ever born in Kansas! I thought everybody came here. That is the way I can't help feeling about the entire West, from Chicago on! Though perhaps I might concede that Mr. Gleed was born here."
"On the contrary," said Eliot, "Gleed is a born Vermonter. But he is a Kansan of the Kansans, all the same. The Colonel, though, is a New Englander at heart, and a foster-child of the sea, which allowed him to catch, off Pigeon Cove, the biggest codfish on record!"

It was a memorable afternoon for the young people, for the two guests knew Kansas from end to end, and they heard so much of interest about the history and the wonderful development of the State, that they became as enthusiastic about it as though Kansans themselves. They were struck by the cultivated appearance of many of the towns they passed through, with well shaded streets, substantial business buildings, and charming looking dwellings of tasteful architecture.
"It was nine years ago the first time I was out here, you remember, Charlie," said Eliot. "The change since then has been almost magical. Even at that time, the trail of the frontier was over it all! Why, in Topeka, the State capital, there was not a decent hotel, and except at the railway restaurants hardly an endurable meal was to be had in the State outside of private families. In Topeka the streets were ankle deep with mud after a shower, and they were just building the first street-railway in the State! Now, they have better streets than New York or Boston; miles and miles paved with asphalt. In Boston we used to say that we willingly paid liberally for public expenditures, for we insisted on getting the best for our money. That is true no longer. We still pay liberally, but now we do not get the best, for the money is largely misused by our incompetent city government."

Passing through a grimy coal-mining region, where the land had
a sterile and forbidding look, they descended into the valley of the Arkansas, the main stream of the southern portion of the State, and which they were to follow for the rest of the way through Kansas and well into Colorado. But, at that time of the year it was dark some time before they came to where that broad and shallow river might otherwise have been seen. "What a finished look this country has!" observed Florence. "It doesn't seem like a newly settled region at all."
"And yet white people have lived here less than fifteen years," said Mr. Gleed, with a touch of pride in the development of his State.
"With so many substantial stone walls in that limestone region we have just passed through, and now with these long lines of hedges dividing the fields, the country has a sort of English look," said Eliot.
"You see our wonderful capacity for growth includes the power to grow old quicker than any other comntry," responded Mr. Gleed.

Harry observed that the prairies hereabouts were different from those they had passed through; they were no longer rolling, but stretched evenly away to the horizon, their surface-monotony broken by houses standing here and there, in every direction, surrounded by trees, and looking like islands of an archipelago, he thought.
"You will hardly find any of the primeval prairies anywhere, now," said Colonel Johnson, "outside of the Indian territory and some remote portions of Texas ; the land has all been taken up."
"What a change in nine years! It seems as if settlers must have poured in here in a perfect flood. When I was out here in ' 81 I used to drive with Colonel Haren for miles and miles over the
open prairie, and there wasn 't such a thing as a house in sight," said Eliot.
"The frontier days were only just over then," remarked Mr. Gleed; "at Newton, now a handsome, good-sized city, where the passengers of this train take supper this evening, there was nothing but a tough settlement of shanties; it was the end of the track then, and in the construction of railroads out in this country the 'end of the track' has always been a rough place, with lawlessness, gambling, and all sorts of crime, including Lynch law. Just outside of the town there is a little patch of ground called 'Boot Hill' graveyard where those are buried who 'died with their boots on ; ' that is to say, who met with a violent death. Eleven men were shot and killed in one night. But within one year from that time Newton became one of the most quiet and orderly communities in America, and has been so ever since. Some of our young towns here in Kansas have eventful histories, for all their few years."
"Where is Father Swemberg now?" asked Eliot.
"He died in Florida two or three years ago," replied Mr. Gleed.
"Father Swemberg was the pioneer Catholic priest in Kansas, west of Topeka," explained Eliot. "I spent a delightful evening' with him in his house in Newton, listening to his stories of adventure on the plains and among the Indians. He once saw a battle between the troops and the Indians. One of the soldiers who
was killed happened to fall near an ant-hill, and within a few hours after that his skull was picked up eaten smooth by the ants, and looking as if it had been polished. He showed me the skull in his collection of relics."
"Do you remember his yellow cat?" asked Mr. Gleed. "We have it in our Kansas Historical Society now. It was an Indian tobacco pouch, made of the entire skin of a yellow pussy, stripped off, as the Indians do, without cutting it open, and ornamented with beads and strips of red flannel. Very likely they ate the cat. It is a valuable relic, for it came from the last emigrant train attacked by the Indians in Kansas. It was when the Arrapahoes and Cheyennes broke out from the Indian territory in 1879 and left a trail of blood and ashes across this State from South to North, in consequence of the broken promises of the authorities at Washington a chapter in our 'Century of Dishonor' that cost scores of innocent lives and an enormous amount of money. Everybody felt secure then, for there had been peace for a long time, and the country was fairly well settled. That yellow cat was probably the pet pussy of some family that was taking it from the old home to the new. Everybody was killed. The pouch was taken from the Indians when they were captured, and was given to Father Swemberg by the officer who had it. Father Swemberg gave it to my friend Baxter, who last year sent it by me, when I was in Boston, to the Historical Society. Only eleven years ago last December was that terrible time, when all Kansas was panic-stricken! And now it seems like ancient history!"

Their friends took supper with them before they reached Newton, where they left them to take the branch train for Wichita, on
the line that runs through Oklahoma and Texas down to the Gulf of Mexico at Galveston.

When Harry lifted his window curtain the next morning his first thought was that he was on board the Brynhilda and looking at a sunrise on the ocean. The flat, brown plain stretched away to the horizon without a break. The sky was perfectly cloudless and the sun was just appearing, a great glittering ball, over the rim of the world. But Harry also heard the wind shrieking outside and felt the car perceptibly leaning southward under the steady pressure of the blast, and he knew that in such a gale all that expanse would be furrowed with heaving swells and crested with white-caps were it really the ocean. But the illusion was very near, and the vast, dreary plain was taken to his heart by reason of the resemblance.

When he and Eliot stepped out onto the "quarter-deck" for a whiff of morning air, they did not stay long, though wrapped in their ulsters, for the keen fierce wind, blowing from the north, cut like knives with the fine dust whirled from the frozen plain. "Here we are, well into Colorado, and over four thousand feet above the sea," said Eliot, as they hurried back into the parlor.
"Well boys," said Mr. Brinkley, when he joined them, shortly after, " judging by the looks of things outside, and by what we know of the real Mexican climate, it doesn't seem as if this used to be Mexico. Brrrrr! how cold it must be! But we have the consolation of knowing that we shall soon be out of it, and meanwhile this, is solid comfort in here, isn't it, now?"

The windows on the northern side were covered with frost. Mr. Brinkley, touching an electric button, said, when the jingling
call was answered: "George, just bring a little alcohol and rub down those windows on this side, so we can see out! There isn't much to see, just now," he continued, turning to his nephews, " but pretty soon we shall have the Rockies in sight for all day from that side."

The windows were soon clear of frost, under George's manipulation, and it did not reappear. "The alcohol prevents the freezing of the moisture which the cold glass would otherwise condense from the air," Mr. Brinkley explained.
"That is a pointer worth remembering," said Eliot.
"It is the way they keep the show-windows of the city shops clear on cold winter days, and now I always try it on the cars in cold weather, when I want to see out!"
"So Mexico used to reach way up here?" queried Harry.
"Yes - before our war with Mexico, when we took away so large a part of her territory, and before Texas became an independent republic, Mexico was one of the largest countries in the world, in extent of territory. All of California, New Mexico and Arizona, and nearly all of Utah and Nevada, together with the greater part of Colorado, beside Texas, belonged to Mexico."
"There's one thing to be said in our favor, however," said Eliot, "and that is, that if we hadn't taken that territory, our American civilization would not have spread as it has; all that country would have remained undeveloped, for Mexico hadn't the .means to develop it."
"Probably not," replied his uncle. "If we had not taken it, it would most likely have made the history of the civilized world for the past forty years very different from what it is. The Pacific
railways would not have been built, a large portion of the immigration to this country would have gone to other parts of the world, and the relation of the various countries to each other now would therefore be quite different. But the fact that great good has come out of it does not make the action of the United States any better; it was an intended piece of wrong-doing on our part, and the real object of the Mexican war was to gain possession of all this land and so make more room for the extension of slavery. It so turned out, though, that slavery did not gain foothold in any of the acquired territory, except in Texas, which was already an independent State."
"But as we paid Mexico for the territory very handsomely, it is denied that we stole it," said Eliot
"Yes, that is the way we have tried to ease our national conscience, and make good the claim that we have not extended our boundaries after the manner of the Old World monarchies. But the fact remains, the war with Mexico was a war of conquest. That we paid for what we took does not alter the case, for we forced Mexico to sell. If a man enters your house and compels you to make over to him a third of your land, holding a pistol to your head until you sign the deed, it is robbery, even though he pays you the full value of the property he wants. No, my boys, it is not patriotic to try to make out that the wrong our country has done


UNCLE SAM AS A ROBBER.
was right. We must look upon our national sins as upon our own ; acknowledge them, and do our best to make things go right in the future. That is true patriotism. That is the way to make our country truly great."

## CHAPTER VII.

## WITH PROW TURNED SOUTHWARD.

6' L AND ho!" shouted Harry, some little time after. He had been looking intently off towards the right, and now he saw, off in the distance towards the northwest, a pyramidal mass brightly white in the sunshine, against the clear sky ; its base invisible below the horizon line.
"Yes, that is Pike's Peak," said Eliot, looking in the direction where Harry pointed. "Now we shall keep within sight of the Rockies all the rest of the day, and by noon shall be in amongst them."
"It seems just like land appearing from out at sea," said Harry, gazing at the great peak. "Like the Camden Hills as you approach the Penobscot Bay, for instance!"
"All those mountains had Spanish names, and many of them remain yet," Eliot remarked. "From now on, things will get more and more Mexican in character. The Spanish influence shades gradually off towards the north. The civilization grows cruder and mixes more and more with the Indians, who form the selvage, so to speak, where the Mexican culture fringes away into the wilderness. Even the wild tribes, like the Navajos, Apaches and Utes, have some Spanish customs, and the few civilized words that they speak are Spanish, rather than English. Finally here in the north the names of places are all that remain to tell of Spanish occupation. When Coronado came up into New Mexico on his march of discov-
ery and conquest, he came at least as far as we are now, and by many it is thought he went as far as Nebraska. He came in search of the 'Seven Cities of C'bola' of which exaggerated tales were brought to Spain, and those seven cities have now been fully identified by Frank H. Cushing and Adolph F. Bandelier as the seven towns of the Zuni nation that then existed. The name of this State is Spanish, you know, and comes from the Colorado river, which means ' red.' Some of the people out here call it 'Coloraydo,' making the common English mistake of pronouncing according to the spelling, instead of as they hear it. So it happens that people who can 't read often get nearer the original pronunciations than those who can."
"I suppose the name of that Ute chief, 'Colorow,' came from Colorado," said Harry.
"Yes, it is the same word. The Spanish pronounce the $d$, between vowels, like th in this, but very lightly, so that in dialects it is often dropped out altogether, so that the termination ado becomes ao, which has the same sound as ow in how."
"Here beginneth our first lesson in Spanish!" said Florence.
"Yes, and you must keep it up for us right along now, Eliot," urged Harry. "I noticed," he continned, "that the train-men, at the breakfast station this morning, called the place ' La Hunter.'"
"They get much nearer the right pronunciation in that than in Coloraydo or Nevayda. If they would only pronounce the $u$ as in bull, or put, they would be almost correct, for the sound of $j$ is much like that of our $h$, only more forcible, making it a guttural, like the German ch, in ach, and just as our gh used to be in Old English."

When they came to Trinidad, the great town in southern Colorado, Eliot explained that the termination dad in Spanish had the same meaning as ty in English, as in caridad, charity; amistad, amity, etc. And the $d$, at the end, was spoken like the $t h$ in with, only very lightly.
"What a strange-looking mountain!" exclaimed Florence, at the sight of the lofty flat-topped elevation, with step-like sides, towering grandly above the town.
"It seems more like a work of art than of nature, - as if it had been built by a race of giants!" said Florence, and Mr. Brinkley told how these mesas, or table-momntains, were characteristic of the landscape in New Mexico, and some archaeologists thought that they might have
 given the suggestion for the teocalis of the Aztecs, the great pyramid-like mounds with terraced sides. Mr. Cushing, in his researches among the Zuñis and the remains of the ancient inhabitants of New Mexico and Arizona has shown how they had their shrines for sacrifice and secret ceremonials among the mountains. He has also shown how the Aztec culture must have originated here in the North. Holding these terraced mountains sacred in their traditions the Aztecs might naturally seek to imitate them in building great pyramids for places of worship.

This Trinidad mountain was in the Raton range, over which spur of the Rockies, rumning eastward off into the plains, their
southward course now lay. "Raton means mouse," Eliot explained, "and rata is Spanish for rats." They were now in among the foothills, and were soon climbing a heavy grade, winding tortuously up a narrow valley where tall pines were growing on the brown slopes. Here and there, amid cultivated patches, stood the huts of Mexicans, who still form a considerable element in the population of Southern Colorado. "Isn't that coal?" asked Harry, pointing to long dark streaks in the rock of the ledges through which the way was frequently cut.
"Yes," answered Eliot, " this is one of the best soft-coal regions west of the Mississippi; from the other side of the mountain thousands of tons of coal are carried way down as far as even the City of Mexico every year."

Their way lay across the shoulder of the mountain they had seen towering so high above Trinidad, and now and then they came into sight of its flat top, nearer and nearer, ever changing shape according to the point of view. The country opened out behind them, and off through the valleys the grand panorama of the Rocky Mountains became more and more extensive, with a procession of snowy summits disappearing into the distance. Nearest of these was the beautiful group of Spanish peaks, and, beyond, the Sangre de Cristo Range, - the Mountains of the Blood of Christ.
"Why, what is the matter? - I feel almost out of breath!" cried Florence.
"So do I !" cried Harry, " I feel just as if I had been rmming a foot-race."
"So say we all of us!" said Eliot. "It is the altitude. We are at a considerable elevation now, and the air is so rare that it takes
a much larger measure of it to supply our lungs. If you had got off the train even at La Junta this morning and attempted to run, you would have felt the difference. And now we are almost twice as high."
"The two locomotives, one ahead and the other pushing behind, were puffing rapidly and loudly in their work of getting the long train up the steep ascent. "It sounds as if those engines were getting out of breath too!" said Harry.
"So it does!" assented Eliot. "I wonder if it has ever been figured out," he reflected, "whether there is any material difference in making steam at a considerable altitude. You know the evaporation is so much greater, and water boils at a temperature so much lower, that it ought to take a much less quantity of fuel to make a given amount of steam. But probably the difference is more theoretical than practical, and so does not come into account. But here we are at the summit, seven thousand six hundred and twentytwo feet above sea-level."
"That is, almost a mile and a half perpendicular above the Brynhilda," figured Harry.
"So that, if we could only keep on out into space at this level the Ariadne would make a pretty good air-ship!" observed Mr. Brinkley.
"We are just a little higher at this point than the City of Mexico, and the two highest points we reach on our way there, after this, are not very much higher than where we are now - Zacatecas, eight thousand and sixty-five feet, and Marquez, just outside the Valley of Mexico, eight thousand one hundred and thirty-two feet."

They had come to a stop. As the locomotive in the rear cut
loose and backed away, Mabel remarked, "The way that engine drops us and backs with a sort of light, happy puff, puff, puff, sounds like a sigh of relief at the end of a hard piece of work. A great machine like that really seems as if it must have intelligence and sensation of its own!"
"I often think it does," said Harry, thoughtfully. "The Brynhilda actually seems to me as if she were alive."
"Everything made by human hands is an embodiment of human intelligence, just as we living beings are an embodiment of divine intelligence," said Mrs. Brinkley.

As the train started forward, Eliot pointed to a series of railway embankments up the mountain-side to the right. "That is the old 'switchback,"" he said. "It was built so that trains could get across the mountain while they were building the tunnel. The trains would zigzag to and fro on that, switching back and forwards, and getting over the mountain that way. They saved several months in pushing the line ahead into New Mexico, by that means."

They plunged into a tunnel, where the darkness seemed to last a long time, although in reality it was but a few minutes. While passing through, Eliot said: "This is the only tunnel on our whole route between Pittsburg and the City of Mexico, and if we had gone by way of Washington, New Orleans and Texas, we might have taken a route without a single tunnel. I wonder if it would be possible to take a railway journey so long in the Old World without a tumnel. It seems remarkable engineering to go the length of a mountainous country like Mexico with such light work as that proves! Ah, here we are in New Mexico! We passed the dividing line in the tumnel. Now let us step out onto the 'quarter-deck' for a while."

They looked off over a gladdening prospect. The noonday air was calm, and in its rare purity it had a pleasant taste like clean spring water in the woodland. At the end of the broadening valley, away off below, there stretched the vast brown plains of eastern New Mexico basking in sumny silence - spreading out to the even horizon like the ocean. On the right the chain of the Rockies tended southward like the bold coast of a continent. "I declare it seems southern already!" declared Florence.
"Well," smiled her father, "New Mexico is hardly the land of bananas or oranges. We are still north of North Carolina, though lines of latitude do not tell so much as many other things in the matter of climate. Here it is January, and here we are, you have just heard how high, and yet it is pleasantly warm out here in the air. We have entered the belt of almost perpetual sunshine, and at mid-day, even in winter, the temperature is usually agreeably mild. But the nights are nipping."

They skirted the chain of the Rockies all day, and constantly watched the changing forms of the summits. Sometimes they were winding among the foothills, and sometimes far out on the plains, where cattle were almost ever in sight, feeding on the crisp, short grass, cured into standing hay in that dry air. "I have often seen herds of antelope from the train, along here, but they are getting rare now and it is doubtful if we would see them anyway, at this time of year," said Eliot. "You see those little mounds on the plain? That is a town of prairie-dogs. The merry little creatures are now cuddled up fast asleep in their underground houses for the winter. If it were summer, you might see them sitting up on those hillocks, barking at us as we went by. I can tell you a curious thing'
about them that you never have seen in any natural history, I 'll warrant. Every one of these towns has a set of bachelors and old maids in the community. All the rest of the inhabitants mate, but these refuse to. So the married ones decline to have anything to do with them, and make them live off in the outskirts where they form little colonies by themselves - sort of monks and nuns! Frank Cushing told me that one time, out at Fort Wingate, near Zuñi. It is a sample of many curious bits of learning he has acquired through intimacy with the Indians. I tell you, those sons of Nature have a store of facts in Natural History that the scientists have n't caught onto yet!"

It was after dark when they arrived at the busy city of Las Vegas, The Meadows, as Eliot explained it meant.
"These Spanish names of places seem more poetic than our English names," he said, " on account of their more beautiful sound, for the language is a noble one with its broad, simple vowels and its smooth-flowing character. But in reality, those names are, for the most part, just as commonplace as ours. For instance, such names as Las Tres Hermanas, the Three Sisters ; El Cerro Blanco, the White Hill; El Rio Hondo, the Deep River, are very common."
"It already seems foreign, - this country that we have been throngh today, although it is a part of the United States," said Florence.
"Yes, but it is rapidly getting Americanized now," Eliot replied. "Ten years ago it seemed as remote from the East as Central America does today, and even more unknown. The Mexican population of this territory is still in a considerable majority, but the

American immigration has been very large since the railways were built and a remarkable change has cone over the country. The towns along the railway, like Las Vegas and Albuquerque, which were previously sleepy and primitive Mexican places, are now as wideawake and go-ahead as our modern towns in the East or West. Just look out the window here! Look at the electric-lights and the street-cars, and the substantial business blocks! And in the town you would see many tasteful houses, with nice lawns and gardens. The uncouthness of the frontier is a rare thing everywhere, now, and in the most remote States and Territories you will find in the leading places, at least, and often in obscure corners of the wilderness, all the luxuries and refinements of modern civilization. But here in New Mexico, as in some parts of California and Arizona, the driving and pushing American life has a stronger effect of newness, by reason of there being beside it a large and easy-going. Mexican population that retains many of its original traits, although clearly influenced by its new surroundings."

The evening was clear, sharp and cold. From Las Vegas their course was westerly for several hours, across the mountains down into the valley of the Rio Grande. While Eliot was telling them stories of New Mexico, with which he was well supplied - the romances of treasure-hunting, of Indian-fighting, of the American occupation at the time of the Mexican war, of the conquest by the Spaniards, accounts of the Pueblo Indians and their strange customs that he had learned from Cushing and Bandelier and of the pioneer days of railway-building - they occasionally looked out into the night at the dark masses of the mountains that loomed about them as their train toiled slowly up long grades or sped down into lower levels.
"I suppose New Mexico will soon be a State," said Mr. Brinkley. "But it is ridiculous to give it the name of ' Montezuma,' as recently proposed. That name, as well as that of 'Aztec,' has been worn threadbare in connection with this region. The Indians here were not Aztecs, and Montezuma had no more to do with New Mexico than he did with New England. The present name is good enough for the State, for it is historic and was early given to it by the Spaniards."
"Yes," said Eliot; " one of the old and principal streets in the City of Mexico is the Calle de Nnevo Mexico, or New Mexico street."
"One of the early names given to this region was El nuevo reino de San Francisco, (the New Kingdom of San Francisco), and it was also known as the Province of Santa Fé, after the Spanish custom of usually naming the provinces of Mexico after their chief cities," continued Mr. Brinkley. "But, if the name be changed, the most appropriate thing would be to call the new State 'Cíbola,' which would be not only a beautiful name, but appropriate, for it was the land of Cíbola that Coronado set out in search of on his famous march."
"Do you know we are at the southern end of the Rocky Mountain chain?" asked Eliot. "This is the Santa Fé Range to the right, and sonthward of here there are no more perpetually snowy peaks until we reach the City of Mexico. Santa Fé - la Villa real de Santa Fé, the Royal Village of the Holy Faith, as the Spaniards call it - nestles beautifully on the table-land at the foot of Old Baldy. It is a quaint old place, and I wish you might see it. But we might have a pretty cold day up there this time of year, althongh
the air is glorious. It is almost as high as the City of Mexico, though it is much warmer in summer, in spite of being almost fifteen hundred miles farther north. Or rather, because it is so much farther north, since the summer sun stays above the horizon longer, and so the earth gets heated up more and cooled off less than in the tropics. And then in Mexico the almost daily rains in the summer cool the air.
"But, as I was saying, the Rocky Mouncains end here. The general mountain system continues southward, but its character changes ; the ranges are not continuous. The summits are lower, and the mountains are broken up into separate groups, rising from the plains like islands from the ocean."

The next morning they were far down the valley of the Rio Grande, but had left the river before daybreak, and when Harry got up they were passing over the bare, high plain to the eastward of the stream. "This," said Eliot " is the Jornada de Muerte, the Journey of Death, as the Spaniards named it, for in the old days, the route between the South and Santa Fé lay over this waterless plain and often men and animals would perish of thirst."

The yellowish brown grassy surface was thickly sprinkled with dark lumps of lava rock, and the sharp contours of mountain groups rose all around, near and far, the higher ones glistening with their mantles of winter snow. It was still cold, but not severely so, and it seemed like a pleasant morning in late October. As the sun mounted in the sky it grew agreeably warm, and it was a pleasure to jump down and run about every time the train stopped at the stations, where usually there was nothing but water-tanks and the houses for the section-hands.
"It seems almost pathetic to see these little gardens about those houses here in the desert," said Mabel, as they noticed the enclosures with the remains of what had been summer flowers, cherished evidently with tender care, and now withered and rustling in the winter wind.
"But they are a charming sight in summer," said Eliot. "And look at those trees ; how they have shot up! And those great yuccas, so much bigger and sturdier than those we see on the plains. It is water in abundance that does that, under this sunshine. The railway water-tanks, where modern skill has sunk wells in the dry desert, have made bright little oases in the Journey of Death. You see they keep some cattle along the railway line now; there is good grass everywhere, but off there a few miles cattle cannot live, for it is too far from water."

At Rincon they descended again into the bottom lands of the Rio Grande - broad and level, richly cultivated, with irrigating ditches rumning in every direction and bordered by long lines of great bare trees that made Harry think of processions marching across the country in single file. Soon they plunged into a range of mountains through which the river dashed rapidly in a narrow, wild gorge, the track running close beside the stream, at some height above the water. On the other side of these momtains they stopped for a few minutes at the old military post of Fort Selden, with thick-walled buildings of adobe, and Eliot pointed out across the river, just opposite the fort, the heights of Mount Roble, where Prof. Davidson observed the transit of Venus in 1882, this clear air offering the best opportunity for astronomical observation.
"Roble is Spanish for oak, and encina for live-oak, the evergreen species that grows in warmer countries," said Eliot.
"What does Rincon mean - the name of the junction station just before this?" asked Florence.
"You pronounce it as if it rhymed with Lincoln," replied Eliot, with a laugh. "It is the rule in Spanish to accent the last syllable of words ending in consonants. And each vowel has but one sound. This is the way: Rin-cone. It means inside corner. Spanish has two words for corner, that on the outside of the angle being called the esquina (pronounced es-kee-na)."

They came out into another broad and cultivated plain, bordered on the eastward by a range of sharply serrated mountains, - Los Organos, so called from their resemblance to organ pipes. "This is the Mesilla valley, purchased from Mexico subsequent to the annexation of New Mexico, under the Gadsden treaty. It is very fertile, as you can see by the way it is cultivated. Before the purchase the boundary line ran just the other side of the town of Las Craces, this station where we are stopping now. There were many patriotic Mexicans here who objected to living under the American flag and so they went across the line and settled the pretty town of Mesilla, on the opposite side of the Rio Grande. But fate was against them; when this Gadsden strip was annexed they were brought into the United States again. A few years ago the course of the river changed during a season of high water, so that one morning the people woke up and found their town on this side of the stream!"
"So if they hadn't been annexed by treaty, Nature would have annexed them!" remarked Mabel.
"O by no means!" replied her brother. "The original riverbed would still have been the boundary. But that is one of the inconveniences of making a river a political division line. It is
not a natural boundary; for a river, instead of separating the people living on opposite sides, unites their interests by giving them a common channel of transportation. Then, as we have seen, a stream by changing its course is apt to produce a confusion in the distinction of boundaries. The Mississippi, for instance, has shifted its bed so much that many portions of the east
 bank are in Arkansas. Vicksburg has been changed over to the west shore since the war. But by looking at the ordinary maps you would never think the river had made such a confusion in State lines."

A little later they were traversing a wild plain where the light sandy soil was blown into bunchy hillocks, with a shrubby growth protruding from the top of each. "That bush is mesquite," said Eliot. "It usually grows like any other tree, but here it chiefly runs to roots, on account of the sand covering it up. So the people around here dig their fuel very much as they would potatoes. There's one of them now!" and. he pointed to a Mexican driving a donkey along near the track; the little beast toiling along with a load of mesquite-roots tied onto his back almost as big as himself. "He's been working his wood-mine, you see."
"That sort of firewood would please the old woman who said she liked the crooked sticks because they curled around the pot so beautifully," said Mabel.
"Ah, here we are in Texas!" exclaimed Eliot,- pointing to a boundary post.
"It seems queer that we should strike the first really Southern State in our journey way out here at this extreme corner of it, close to Mexico!" said Harry.
"How about Missouri ? " asked Mabel.
"O, that doesn't count. Although it was a slave State, we always think of it as Western, rather than Southern. And Kansas City is decidedly western!"

## CHAPTER VIII.

## ON THE FRONTIER, TO AND FRO.

"NOW for your first look at Mexico ! " and Eliot pointed towards a dark line of highlands to the southward, with mountains ranging off bluely beyond. "Do you see that monument? That marks the boundary, and beyond that the right bank of the Rio Grande is Mexican all the way to the Gulf, - except in a few spots where the river has changed its course."

The valley narrowed and the mountains on either side drew nearer together, with the river flowing between, the banks rising into high cliffs on either side. On the other bank they saw the line of a railway winding along on a shelf on the face of the bluff, like their own track on this shore. Just below the obelisk that was standing high above, the line made a leap across the river on a substantial iron bridge to their own side, and kept along parallel with their track and several feet below their level. "That is the Southern Pacific," said Eliot. "It keeps along that side of the river up to within a few yards of the boundary, and then crosses to this bank to avoid entering Mexican territory."

A few miles more and they drew into the station at El Paso. "Just on time to a dot!" cried Harry, looking at his watch and finding it ten minutes of one, as they came to a standstill.
"We are in luck," said Eliot. "Two or three hours behind is nothing uncommon on these long-distance routes. We wait here
some little time before we cross the river, I believe, and our train doesn't pull out for Mexico until quarter past five. What do you say to getting out and taking that street-car, and going ' By Horsecar to Mexico,' as 'H. H.' calls that interesting sketch of this place."
"That would be fun - but O no! It would never do for us not to enter Mexico in our own yacht!" cried his sister.
"Yes, we must stick to the Ariadne on a solemn occasion like this!" said Harry. "To cross over in a horse-car that isn't even a horse-car, for it is drawn by mules, would be like going in a common punt."
"Besides, it's dinner time," said Mabel.
"I'll tell you what," suggested Eliot, "we shall have plenty of time, so when we have got over there we can come back to 'the States' by street-car and return again to Mexico. In that way we can see something of the two cities."

While they were at dinner they were taken across the river by a switching-engine, together with the Pullman and baggage-car of the train, so that a transfer could be conveniently made by the passengers. They looked down into the swift and shallow stream rolling turbidly beneath them as they crossed the bridge, in the centre of which Eliot called: "Now we are in Mexico!"
"Hurrah!" shouted Harry.
" Just think, we are really abroad, in a foreign comntry, withont crossing the ocean !" said Florence.
"And you a yachtsman at that, and never sailed as far as Nova Scotia, or even New Brunswick, making your first cruise abroari overland in a land-craft!" said Eliot to Harry, teasingly.
"Well children, how does it make you feel to be in a foreign land?" asked Mr. Brinkley.
"Pretty well excited, evidently!" said his wife, enjoying the expressions of their glowing faces and sparkling eyes.
"At any rate, you must spare time to eat some of this in honor of the event," Mr. Brinkley said, as George set before them a dish of ice-cream ornamentally arranged, while Sam's dark face appeared in the doorway to observe the effect of his device, his mouth expanded into a delighted grin at sight of their evident approval.
"An arrangement in green, white and red - the Mexican colors ! Good for you Sam ; you're an artist!"

They drew up at the station, and saw that the crowd on the platform was truly foreign in character. There was a multitude of Mexicans looking impassively on at the train ; men with gay-hued blankets about their shoulders and women with thin black shawls enfolding their heads and hiding their mouths - all swarthy, with dark eyes, while now and then there was a flash of gleaming teeth. Sprinkled among them were the stalwart figures of young Americans, mostly brown-haired and with clear blue eyes; their faces tanned to a hue almost rivalling that of the Mexicans. They were mostly railroad men, and they moved actively to and fro in the crowd, giving and taking orders. Here and there was a slouching, slinking figure, with unkempt hair and beard the color of dusty hay - the typical tramp and bummer from across the border. There were also some natty looking men in uniforms, with a decidedly foreign air.
"Now for the custom-house ordeal!" said Mr. Brinkley.
"Let me look out for that," said Eliot, and he greeted one of
the uniformed officials who appeared at the door with a cordial "Buenos dias, Señor!" (Good day to you, sir !)
"Buenos dias!" he replied; "Dispensenme Ustedes, pero yo soy un oficial del aduana, y - " (Pardon me, your excellencies, but I am a customs officer and - )
" Usted tiene el deber de examinar nuestro equipaje, no es verdad? Pues es una honra enseñarselo. Nunca molesta una visita de un caballero como Usted. Al contrario, siempre es ocasion muy grato!" (You have the duty of examining our baggage, have you not? It is an honor to show it. The visit of a gentleman like yourself is never a molestation. On the contrary, it is always a very pleasant occasion.)

The official beamed in reply: "Usted es muy amable." (You are very amiable.)
"Um puro habanero, señor?" and Eliot tendered a cigar, which the officer accepted with a "Muchas gracias!" (many thanks.)
"Pero que trastornada está la poblacion esta - y mejorada tambien!" Eliot went on. "Toda esa corre por cuenta de la presencia de Usted y los demas oficiales, creo!" (But how transformed is this place - and improved also! All that is on account of the presence of you officials, I believe.)
"No tanto, no tanto, señor! Viene de la prosperidad introducido por el ferrocarrill lo cual debemos a los paisanos suyos, los Americanos." (Not so much as that, not so much as that, sir! It comes from the prosperity introduced by the railway, for which we are indebted to your countrymen, the Americans.)
"Y con la prosperidad vienen los officiales caballerosos - es verdad! Pero le estoy deteniendo á Usted. Vamos a ver las
cosas!" (And with the prosperity the gentlemanly officials - it is true! But I am detaining you. Let us look at the things !)
"No hay caso, señor! Ustedes son excursionistas y-" (There is no occasion, sir! You are excursionists, and -)
"Es cierto que no tenemos mercancias. Es Usted muy cabellero" (It is true we have no merchandise. You are very much of a gentleman, sir.)
"Es nada, señor! Pero que carro tan hermoso es este! Es un verdadero palacio!" (It is nothing, sir! But what a beantiful car is this! It is a genuine palace!) said the official, looking around admiringly.
"Si tenga Usted tiempo, hágame el favor de acompañarme para que se lo enseña á Usted. Sería para mi una placer indecible." (If you have time, do me the favor of accompanying me to look it over; it would be a great pleasure for me.)

When Eliot had finished his tour of inspection with the official he sat down with him to a dish of the ice-cream, whose Mexican tri-coloring touched his patriotic soul. Then taking a very formal fareivell on the platform, with repeated assurances of regard from both sides, Eliot returned to his friends and was greeted by his uncle with an admiring "Bravo my boy! You carried ns over that finely!"
" O , there is nothing like courtesy with these people! Rudeness is almost a cardinal sin in Mexico. And it is charming to see the gentleness of conduct, the respect for another's personality, which marks the intercourse of all classes in this country. Here at the custom-house, although they pile on the duties ummercifully in the case of freight, they are very considerate
in the treatment of passengers, and, as you have just seen, they appreciate a courteous bearing on the part of Americans.
"But speaking of the custom-house, reminds me of a story that Mackenzie, recently general superintendent of the Mexican Central, told me of the time when his headquarters were here. This place is in the Zona libre, the Free Zone, now, but then the belt had not been extended up the river to this point. The free zone is a strip of territory along the border within which, under a law of Mexico, there is free trade with foreign countries. European goods are now sold in this place, brought
 through our country in bond, at almost European prices, and there is naturally a good deal of smuggling back to the American side. But as to Mack's story. An Irish locomotive engineer, in charge of a switching-engine like the one that brought us across the river, was compelled by his duties to live on this side of the river. He wanted a cook-stove, and came to Mackenzie asking permission to import it with the railway material, which comes in duty free. But the company has to be very strict in such matters, being under Mexican laws, and so Mackenzie felt obliged to refuse. So the man undertook the responsibility of smuggling it over him-
self. The duty on such a thing is so much a kilogram, which would make its cost enormous on this side, although stoves were cheap enough in El Paso. But they are almost unknown in Mexico, and hardly one Mexican in a hundred thousand would know the difference between a cook-stove and a dynamo. The engineer bought his stove and had it brought down to the yard on the American side, where he set it up in front of his engine, with a section of smoke-pipe attached. He then kindled a fire in it and started for Mexico. At the station here the custom-house man came around as usual, peered into the cab on the lookout for contraband packages, and meanwhile the engineer was going the usual rounds of his locomotive, oiling up. In front the cook-stove was pouring a lively stream of black smoke from its pipe. The engineer solemnly looked it over, took off a cover and gave the fire a poke, took off another and repeated the operation, and then, in a most professional manner, carefully oiled the hinges of the oven door ! His ruse was successful, and the custom-house man had no suspicion that the stove was not some kind of an attachment to the engine. Machinery comes into Mexico duty free, and there was a certain mining company up in the Sierra Madre that wanted a cooking-range for its camp headquarters. The duties on it would have amounted to a thousand dollars, or more, and so it was imported under the head of 'mining-machinery,' and at the custom-house they were none the wiser."
"Well, as we have plenty of time, let us take a trip back to the United States," said Mr. Brinkley.
"It does indeed seem foreign here," Mabel remarked, as they were on their way in the street-car. One wouldn't think there would
be such a difference just across the river. There is that massivelooking railway station, built about an open court; all these adobe buildings, those signs in Spanish over the doors, and nearly all the people we meet!"
"Yes, but it is a sort of frontier foreignness," said Eliot, with a shade of contempt in his voice. "Just wait till we get well down into Mexico!"
"It seems really Southern, at any rate," said Florence. "It is so warm in this air that my clothing feels altogether too heavy."
"Nothing particularly tropical about the vegetation, however!" replied Eliot. The trees were all bare, and the garden plants about the houses had a dry and frost-stricken look. But there were a few hardy flowers blooming, and there were some Southern-looking shrubs with green leaves. "Now and then, in winter, there are several inches of snow here, but it doesn 't stay on the ground long," Eliot went on. "We are in about the latitude of Montgomery and Savannah, but we are still two thousand seven hundred and seventeen feet above the sea."
"What a long way from home we are! And yet we have spent but five nights on the car," Mrs. Brinkley remarked.
"Is that all?" cried Harry. "Why I feel as if I had been living on the Ariadne a month or two already!"
"Just how far have we come?" asked Florence.
"Let's see," responded Eliot, "we are just one thousand six hundred and thirty miles from Chicago, and so we have come nearly three thousand miles altogether, from Boston to the boundary."
"I'm sure I don 't see anything very 'grandy 'about the river," exclaimed Harry, looking down from the bridge as they crossed,
upon the turbid waters running swiftly over wide, flat expanses of sand. "Why, see that cart down there in the middle of the stream crossing over with the water only just over the hubs!"

Eliot answered: "And yet I saw it over twenty feet deep at this point when I came north in July. It kept that way nearly three months, there had been so much snow in the Rockies the winter before. It washed away the railroad bridge here, and we had to cross in a skiff. It washed away miles and miles of the Santa Fé tracks in New Mexico and Texas. It was a river not to be sneezed at, then!"
"And in length it is certainly worthy of its name," said Mr. Brinkley. "Just think, its source is way up in the Rockies of Southern Colorado, and it is a clear mountain stream the first hundred miles, or so."
"The Mexicans call it the Rio Bravo from here down to the Gulf. That would make it mean swift river, but I have heard it said that the name was given in honor of General Bravo, one of the heroes of their struggle for independence. But," continued Eliot, "Rio Grande does not mean grand river, but great river. In Spanish the meaning of the adjective is modified, according as it comes before, or after the noun. When the adjective comes first, its meaning is figurative, and when it follows its noun, it is literal. If it were the Grand River, its Spanish name would be El Gran Rio."

On the bridge an American customs-officer had boarded the car, and poked about among the parcels of the passengers, looking with much suspicion on some, asking minute questions, and notifying others that they must go to the custom-honse with him to have the packages that they carried passed upon. "That business has to be
gone through with, day in and day out, on every street-car that passes from the Mexican side across to El Paso," said Eliot. "They are fearfully strict here, for there is a dealer in Mexican curios in El Paso who complains if anybody brings in duty free so much as a ten-cent ornament from the other side. He wants everybody compelled by law to patronize his shop."
"This place seems as American as the other does Mexican," Mrs. Brinkley remarked, as the street-car rolled at a leisurely pace through the modern, wide-awake looking city, with large and substantial business structures, and many handsome dwellings with pleasant grounds. "What a contrast from that time you brought me down here with you in July, '81, Uncle Lemuel, just after the Santa Fé had built its track into the place, and the Mexican Central was just beginning work from this end southward," said Eliot. "The place was mean, slouchy and tough. Only a few weeks before, the 'rustlers' had full sway and sometimes there were several murders in one day. The only hotel was the nastiest den I ever saw, and we nearly starved the one day we spent here. Now look at those fine large hotels, supplied with every convenience, and see how the town has spread far out into the desert."
"Even though I knew that five railroads meeting here could not help making it an important point, I felt in all that heat and dirt and dust that I wouldn 't give ten dollars for the whole place," Mr. Brinkley added. "But they were preparing for the future then, and although it made me laugh to see the plans posted around showing all that gravelly cactus desert laid out into fine streets and house-lots, they have been pretty well realized now. It gives one an idea of the way our comntry is developing, and of the tremendous
energy and power of the American people, to travel anywhere now-a-days, north, south, east or west, and see the changes of even two or three years."
"These little coops of wooden houses where the great mass of people live seem to be of the same pattern everywhere in the West, don't they?" Mabel remarked. "In their size they seem to be so at variance with the Western standards of bigness concerning about everything else. In the East they would be considered hardly fit for anything more than hen-houses! I don't see how they stand it in the summers of a climate like this."
"Such houses are hot as blazes, almost!" Eliot answered. "The people stew, fry, roast, and fricasee themselves by living in them. Nothing could be more unfit for this climate. The thick earthen walls of an adobe house give as much coolness as possible, but there is such a prejudice against anything that is Mexican that wood is considered the respectable thing for building, and so the average American here sticks to it!"

On their return to the Mexican side, Mr. Brinkley told them how the two towns used to have the same name, "El Paso del Norte," meaning the northerly pass, or crossing of the Rio Grande. The Mexican town was the principal place, and on the Texan side there was a wretched little hamlet only. But as the latter grew, it took on the name of El Paso, while the original place became known as Paso del Norte. But lately, to avoid confusion, the Mexicans had renamed their place, and it was now called Ciudad Juarez, or Juarez City. It was an appropriate name, for it was here that the great statesman, the famous president of Mexico from the time of the civil war of Reform down through the rule of

Maximilian as emperor, was driven when his fortunes were at their lowest. Two great achievements therefore gave him high rank as a patriot, the reconstruction of the Mexican form of government on liberal principles, and the ridding of his country of foreign invaders. Juarez maintained the seat of republican government here at this place for some time, and never was driven to take refuge on American soil, although prepared to in case of necessity. All through Maximilian's reign he never ceased to act as president of the republic in some portion of the country.
"It should never be forgotten," said Eliot, " that Juarez, whom William H. Seward declared was one of the greatest of modern statesmen, was a full-blooded Indian, as you may see by any of the portraits so common in Mexico. It is well to remember that, as well as the fact that Mexico is really an Indian republic, with something like nine-tenths of Indian blood in its population, when we hear any one discussing the Indian question and saying the Indians are incapable of civilization."
"Why, our own ancestors fifteen hundred years ago were the savages of Northern Europe, as wild as any North American Indians today," Mr. Brinkley asserted. "And the Aztecs and ancient Peruvians were Indians, developing what might have been a high order of civilization of their own when the Spanish conquerors came and extinguished it. The Aztec calendar was more accurate than that of their Spanish conquerors, and must have been founded on a more extensive astronomicail knowledge."
"B-r-r-r! It is getting chilly!" exclaimed Florence, as they came within sight of the train made up at their station, with the white Ariadne in the rear, contrasting with the dark Pullman just ahead. "I didn't look for this from Mexico!"

The sky had been gradually becoming overcast. It was now quite gray, and a raw wind had begun to blow from the north. "A hint, not exactly gentle, for us to withdraw from the frontier!" Mr. Brinkley remarked, with a laugh.

Harry went with Eliot to look at the train, with its Spanish words on the cars and the locomotive ; "Ferrocarril Central Mexicano " (Mexican Central Railway), and "Carro Dormitorio Pullman" on the Pullman Sleeping car, while the three passenger-coaches were ranged from front to rear in the order of third, second, and firstclass, respectively, after the manner of European railways, though American in style of construction.

The bell rang, the conductor shouted the equivalent for "All aboard!" "Ya vamonos," (Now we go!) and the train began to move southward in the gathering dusk. The cosy, brilliantly lighted interior of the Ariadne never seemed more home-like.
"We are rumning on City of Mexico time now," said Eliot. "This makes the third time to change our watches since we started. An hour slower at Pittsburg, another hour slower at Dodge City in Kansas for Mountain time, and now twenty-four minutes forward again - a net difference of one hour and twenty-three minutes slower than our Eastern time."
"That's because we have to go eastward again, I suppose !" said Harry.
"Yes," Eliot replied, " we have come westward to the backbone of the continent and are now following it southeastward down to the capital. You know the standard time in our comntry is that of the respective meridians, or very near the meridians, of Philadelphia, St. Louis, Denver, and that of the line between California and Nevada,
which are each fifteen degrees apart, making a difference of an hour in the time of each. Our last standard was that of Mountain Time, reckoned by the one hundred and fifth meridian, which is that of Denver. The meridian of the Mexican capital, whose time standard is for all the railways of this country, is the ninety-ninth, which makes just twenty-four minutes difference, there being a change of four minutes to a degree."
"That is a good thing to remember, that four minutes to a degree business," said Harry.
"How far is it to the City of Mexico?" Florence asked.
" Nineteen hundred and seventy-three kilometers, or twelve hundred and twenty-three and one-half miles."

## CHAPTER IX.

## IN A FOREIGN LAND.

HARRY was up by daylight the next morning, looking out over the country. The air was sharp when he stepped out onto the "quarter-deck," but he wrapped himself in his thick coat and watched the track slip away behind the train, mostly in long lines of arrowlike straightness for miles and miles, sometimes rising gradually up an even incline, and again descending into the distance, while the slower motion and rapid puffing of the locomotive indicated that they were running up a grade. A broad plain on either side extended away to the feet of long chains of serrated mountains that drew nearer and nearer together as the train advanced, until they almost met, leaving a narrow valley for the passage of the railway, and then they gradually fell away again. The plain was well covered with crisp, brown grass, and there were few trees to be seen, except a leafless clump about some white-walled, fortress-like enclosure visible in the distance at rare intervals. The momentains were bare in their sharp outlines. There was a certain general resemblance to the New Mexican landscape of the day before, but Harry's keen and observing young eyes noted many marked differences that gave it a distinct character. "Those yuccas are much larger than those we saw yesterday; I suppose that comes from our being so much farther south, doesn't it?" he said to Eliot, who had joined him. He pointed to the great plants dotted here and there all over the
plains, with their sharp leaves growing in bristling clusters at the end of their thick stalks, several feet from the ground.
"Yes," replied Eliot, " but tomorrow you will see them growing in regular forests, and large trees in size ; thirty and forty feet high. I wish you might see them in blossom - but perhaps you will before we get back. Do you notice those great dry spikes on some of the plants, like little sticks tied on? They are the remains of last year's flowers and seeds. They call the yucca the Palmilla (pronounced pal-mil-ya) here. The roots make a perfect natural soap. The women pound them and bruise them with stones, and then stir them around in water, making a thick lather, which washes cloth wonderfully clean. Amole (ah-mo-lay) they call the roots. It is the finest thing for washing the hair, leaving it soft and silky ; not in the least harsh and dry, as does soap."
"Here we are stopping at this water-tank; let's jump off and get a root to use in the bath tomorrow," suggested Harry, alert to try everything new.

They rushed for the nearest yucca and tugged frantically, with little avail until a handsome, brown-faced youth, who had been looking smilingly on from the station platform, came to their assistance, and easily extricated it from the earth. "Mil gracias, amigo! Usted tiene la habilidad de un dentista!" (A thousand thanks, friend! You have the skill of a dentist!) said Eliot, taking out a quarter and handing it to him. But the young fellow courteonsly refused the money: "De nada, señor; no acepto dinero por eso! Basta el placer de recibir las apreciaciones amistosas de Ustedes!" (It is nothing, sir' ; do not take money for that! Sufficient is the pleasure of receiving your friendly appreciation.)

At this charming reply Eliot gave a frank laugh and said, in English, "Well, my boy, you are a regular white man!" while Harry extending his hand and saying nothing, but speaking thanks with his eyes, rushed into the car and in a moment reappeared on the "quarter-deck" as the train began to move away. He had snatched from the table a couple of beantiful great red New England apples, and tossed them toward the young Mexican one after the other, the latter catching them with sparkling eyes and a pleased laugh.
" Mercy, what have you there?" exclaimed Mabel, who meanwhile had appeared with Florence, as Eliot entered with the yucca.
"A sample of native soap, with scrubbing-brush attached!" replied her brother.
"Why, those leaves are like daggers, their points are so sharp!" cried Florence, shrinking from the touch of one of them.
"They call it the Spanish bayonet on our side of the line," said Eliot. "When my friend Fletcher of Santa Fé was special agent for the Interior Department he once made a trip across country in Southern New Mexico. One of the two mules hitched to his buck-board was so inclined to loaf that the other one did nearly all the pulling. So the next day he hit on the expedient of lashing one of these yucca heads to the whiffle-tree just back of the lazy beast. As soon as she began to loaf she felt a gentle reminder from behind that made her spring forward with remarkable energy. All the rest of that day she was the smartest mule in the Territory, and her mate had an easy time of it."
"I see that it says kilometers, instead of miles, on all these distance posts along the track," said Harry.
"Yes; the metric system is the standard in Mexico, as in nearly all civilized countries except our own and the other English-speaking nations of the world. It ought to be everywhere, it is so simple and convenient. Really I can't for the life of me remember the various tables of weights and measures - Apothecaries' weight, Troy weight, etc., - that I learned by rote at school, except the few simple things I have constantly had to apply in practice. But the metric system, with its uniform decimals, once learned cannot easily be forgotten."
"I haven 't the slightest idea of a kilometer," said Mabel.
"But it is the easiest thing to get an idea of," her brother replied. "American civil engineers coming here take to the standard at once ; it would save us lots of time and bother if we could only use it at home entirely. A kilometer is, in round numbers, just about five-eighths of a mile. It is about the distance one would walk in fifteen minutes, going at the ordinary gait of most people. A kilometer a minute is also about the average speed of an express train."
"Three hundred and fifty-six kilometers," Harry read from a post as they sped by.

Eliot jumped up. "Well!" he exclaimed, " we had better be on the lookout! Yes, there it is - that's Chihuahua!" and he pointed across the plain, where at the feet of mountains rising abruptly, with outlines resembling cumulus clouds, there spread a considerable mass of buildings, with domes and towers here and there, and, above the rest, two stately twin church-towers, gilded by the rays of the early sun. They all looked with eager interest at their first large Mexican city.
"It is 361.8 kilometers, or just two hundred and twenty-four miles, from Ciudad Juarez; a few miles more than between New York and Boston," said Eliot, looking at the distance on a railway "folder" that he had supplied himself with.
"Why, it looks really European - it doesn't seem as if it could be on this continent!" Mabel said.
"Just examine those towers through this field-glass," said Eliot. "It will bring them very near. Suppose you take the first peep, Florence!"
" O how beautiful! What rich stone-carving!"
"I wish you might see it close at hand. It is a beautiful structure. Strangers call it the cathedral, usually, but it really is the parochial church, for there is no bishop in Chihuahua. It is large enough for a cathedral, though."
"What a pity we are not going to stop over here!"
"It almost seems so, but there are so many things to see, and your father thought that we had better make right for the heart of Mexico, where we would find the richest and most interesting part of the country - more than we could exhaust in one season's trip besides enjoying at once a climate of either perfect spring or perfect summer, just as we wished. But it would be worth while to see this place just as I did the first time. The railway had been opened here but a few weeks. It was the last of November, and I came down with a party of friends from Santa Fé, where snow then covered the ground. At Paso del Norte it was like early October at home, but here it was like early September, with a soft, summerish air, the trees full green. Although nearly a thonsand feet higher than the elevation at the boundary, it is so much farther south that
it makes a marked difference in the climate. But now, you see, it looks about as winterish as it does there, and they have considerable snow here at times. We arrived here by moonlight, and it was a full moon, too. It seemed like an enchanted spectacle as we wandered through the streets that evening, with the white light pouring in a flood over the strange architecture. All these State capitals in Mexico are interesting places, and you can see that they are little centres in themselves.
"Chihuahua has a place of some importance in Mexican history. It was founded through the discovery of rich silver mines around here ; those of Santa Eulalia, which are now exhansted. But with the railway the city has become a trade-centre for mining-districts all through northern Mexico. It was here that Hidalgo, the patriot priest who started the Mexican struggle for independence, was finally captured and shot by the Spaniards, with several other leaders in the revolution. Under the Maximilian empire, the French troops were in possession for a time, and the place was besieged by the Republican forces and bombarded ; some of the marks may still be seen on those towers, and one of the bells has a hole shot through it."

All the rest of the day they sped southward through a thinly populated country, treeless, sunny and dry. "Only for a few weeks in the summer, when the rains come, the grass is green all over these desolate plains, and flowers spring up on every hand. But rains are uncertain here in northern Mexico, and some years there are almost none at all," said Mr. Brinkley.
"It does seem to be a thorough desert, for the most part, but if we look at it rightly, we will find it full of interest and even beauty,"
said his wife. "I love to watch these tawny plains, flooded with pure, clear sunshine, shelving away, inclining gradually upward here and downward there, spread with a soft blue veil of haze in the far distance. And then the mountains ever in sight, changing in form almost imperceptibly as we pass, rugged and sharp in this transparent air, with shadows shifting as the day advances, and clothed in wonderful violet and purple lights that make one think the atmosphere here has prismatic properties. A book like this ' Bits of Travel at Home' by 'H.H.,'teaches us to find beauty even in the commonplace and in what most people find wholly dreary. Here is that delicate passage of hers about the sage-brush of the desert, seen from the car-window. And the exquisiteness of this description of the sand with its ripples, blown about the street in San Francisco!"

At about ten o'clock they entered the valley of the Rio Conchas and followed its richly cultivated bottom-lands until they left Jimenez, where their train stopped for dinner, shortly after midday. Outside it was now so hot in the blazing sunlight as to be almost oven-like. Harry reported the Pullman passengers as fairly sweltering with the heat. "Touch first this car, and then the Ariadne," said his uncle, going outside with him at a station. Harry found that the dark side of the Pullman, exposed to the sum, was almost burning hot, while the white surface of their own was cool.
"What a difference!" Harry exclaimed.
"Yes, this white paint and the double roof make all the difference between comfort and misery. We have had the windows closed to keep out both dust and heat, and you see how agreeable the temperature has been. The ventilating fans have given us good air, and the only trouble has been from the dust that would get in,
in spite of our arrangement of fine wire screens to keep it out." "What clouds of dust the train raises at some of these stretches!"
"Yes, that is the greatest discomfort attending travel in a comntry like this, with long months of rainless weather. Even a climate of perpetual sunshine has its drawbacks. As for dust, there is a fine field for some invention that will keep it entirely out of cars while ventilating them thoroughly. If all railways could be thoroughly ballasted with rock, there would be little bother from dust."

It was growing dark when Eliot told them that they had passed out of the great State of Chihuahua - in territory the largest of the twenty-six forming the federal republic of Mexico - into the State of Durango. During the night they would cut across the northeastern corner of Durango and the southeastern corner of Coahuila, and in the morning they would find themselves more than half-way across Zacatecas. "We are entering the rich Laguna region now," said he. "Fifteen years ago, or so, this was an almost uminhabited wilderness, an arid waste. But some considerable streams flow down from the mountains here, and from great shallow lakes, or lagoons, and it was found that the land, irrigated from these streams, was remarkably fertile and particularly fitted for raising cotton and grapes. Vast areas have been brought under cultivation, the use of the water from the streams for irrigation has almost dried up the lagoons by witholding their supply, and their beds are now cotton fields. The trade-centre of the region, Villa Lerdo, where the train stops for supper, did not exist fifteen years ago, and is now a busy city of fifteen or twenty thonsand imhabitants. Large fortmes have
been made in cotton-raising here in the past few years, and the country has grown as if it were in our own West."
"How much warmer it is than it was last night at this time!" said Florence.
"That is because we are not only nearly five humdred miles further south, but only a few feet above the same altitude as El Paso," explained Eliot. "This region is the lowest part of the line between the frontier and the capital, after leaving the Rio Grande."

## CHAPTER X.

## ACROSS THE TROPIC OF CANCER.


$W^{\text {HEN }}$ Harry awoke the next morning Eliot told him that they were again over a mile above the sea-level. "We are just in the tropics," he said. "If you had been up a little earlier you might have seen the point where we cross the Tropic of Cancer."

At the breakfast-table they were talking about being inside the TorridZone, and Florence remarked that the country did not look a bit more tropical than that of the day before. Mr. Brinkley said that of course all the territory within the tropics was tropical, strictly speaking, but in the common use of the term only the warn country, where the luxuriant vegetation flourished, was called tropical. "Here on the table-lands within the tropics is the true 'Temperate Zone,' for the climate is always mild and even at all seasons. What is called the Temperate Zone is really the Intemperate Zone, with its sudden and violent changes of temperature and weather, not only from season to season, but from day to day."
"What a fine idea it would be," said Eliot, "for the railway company to mark the exact spot where its line crosses the Tropic of Cancer, and run a line of prominent stones out into the plain on either side, with some inscription and the zodiacal sign of Cancer, the Crab, close at hand. Tourists would get interested to see the place, and things pay that interest the tourist."
"That reminds me," Mr. Brinkley observed, " that my friend Mr. Frederic E. Church, the famous painter, told me the last time I was in Mexico how he took breakfast on the Equator. He was with Mr. Cyrus W. Field, making a tour in South America. One morning, while out in the neighborhood of Quito, they asked a gentleman and lady whom they met strolling along the road if there was any place in the neighborhood where they could get breakfast. The gentleman pointed to a handsome honse near by and said he thought they might get a fair meal there. He then added that he was the owner of the place and would be charmed to have the honor of their company. They had a delightful breakfast, and Mr. Church, knowing that the Equator must be near by, asked his host if he could tell him just where it was. 'I think you must be on it now,' he answered, pointing to a straight and deeply graven mark running across the floor. Mr. Church looked and saw that the line ran beneath his own chair, so that he had been eating breakfast astride the Equator, with one foot in the Northern Hemisphere and one in the Southern! It seemed that a party of French scientists had been there, and located the exact line of the Equator. They had made their headquarters at that house for some days, and had marked the line of the Equator through their host's dining-room in appreciation of his hospitality, so that at that point, at least, it was
something more than what the geographies call ${ }^{6}$ an imaginary line.' "
"It is interesting that the place where I saw them lay the last rail of the Mexican Central Railroad near Fresnillo, a little back of here, in March, 1884," said Eliot, " is very near the line of the Tropic of Cancer. It was a simple, but very significant ceremony, with the two engines, one coming down from the frontier and the other up from the City of Mexico, 'touching noses' over the last rail. The American consul at Zacatecas stood on the pilot of the locomotive from the South and his brother, who was Mexican-born and a Mexican citizen, on that of the locomotive from the North. The American brother waved the Mexican flag and the Mexican brother the American flag. The American shonted 'Viva la republica de Mexico!' and the Mexican, 'Viva los Estados unidos del Norte!' (Live the republic of Mexico, and live the United States of the North). Then they crossed the two flags, and the American consul called, in Spanish, 'As we two brothers embrace, so may the two sister republics embrace!' It was all spontaneons, and most symbolic of the event. The laying of that last rail, a little to the south of the Tropic of Cancer, completed the first railway in the world that had been built from the Temperate Zone down into the tropics. It was one of the most important events in the history of Mexico, for it made her practically a part of the world at large, and it brought the capitals of the two largest republics in North America into close and speedy communication."

While they were at breakfast they had left the station of Calera. "In less than thirty kilometers," said Eliot, " between here and Zacatecas we climb nearly a thousand feet - only seven feet lacking."

In their tortuous course to attain that height they wound steadily along an unbroken series of curves, and they all stood out on the "quarter-deck" to watch the landscape widen gloriously out as they steadily ascended, into great expanses of sun-bathed plains and rugged mountains. It looked as if they were entering a region of great military importance, for on the hill-tops and along their slopes were huge structures of stone resembling strongly fortified castles. Smooth and well-built roads wound their way up the hills like great white ribbons looped along over the brown mountain.
"What are all those castles?" asked Florence.
"They are not castles, but mines," answered Eliot, " or rather the buildings of mines. They build to last in this country, you see. And they had to build strongly, too. Those mining headquarters are fortified like castles, for in the old days, up to within fifteen years, even, the owners of the mines had to depend upon themselves, for the most part, for the defence of their property against robbers, who scoured the country in organized bands, and against ' pronunciados,' men who 'pronounced,' as they say in Spanish for getting up an insurrection, or revolution. That was in most instances done, not on account of any wrongs to be righted, but as a pretext for systematic robbery of rich mines and haciendas, or great plantations. These great mines often had many hundreds of thousands of dollars, either in bullion or coin stored within their walls and awaiting a favorable opportunity for transportation across the country in 'conductas' or treasure-trains of bullion-laden wagons escorted by strong military guards. So they were prepared for attacks, and at times had to withstand regular sieges."

Meanwhile they began to pass through clusters of buildings, out-


FOUNTAIN AT ZACATECAS.
See page ilz.
skirts of the city, disposed at haphazard over the hills, and here and there a ravine was spanned by a series of slender arches, carrying acqueducts for the water raised from mines. Water is an article carefully cherished in a region like Zacatecas, where rain is scarce.
"Here is the next to the highest point on our route to Mexico eight thousaud and sixty-five feet above the sea," said Eliot. "It is also a divide between the Atlantic and Pacific, and we are now on the Pacific slope for the first time. We shall keep along on this slope all through the day, and tonight, just beyond Querétaro, we shall return to the Atlantic slope again. That shows we are following along the backbone of the continent pretty closely. The City of Mexico is on neither slope, for its valley has no outlet. But when the drainage tumnel is completed it will be brought onto the Atlantic slope, for the waters of its lakes and streams will flow down into the Gulf of Mexico."

The motion of their train showed that they were now running along at a level, and in a moment they stopped at the station, where there was a bustling crowd in waiting. Below, to the left, there reached away a narrow valley, entirely filled with the great mass of buildings of a large city. It was au important-looking place. They looked down upon the flat roofs and traced lines of crooked streets following the irregular surface. Handsome towers and domes lifted their heads on all sides, and the solid buildings spread irregularly up the mountain slopes and extended up side-valleys and ravines, disappearing around projecting headlands. On the crest of a steep cliff rising over the centre of the city there stood a romantic-looking church.
"That cliff," said Eliot, " is called La Bufa. There is a
mine up there, as there are mines all around, above, beside, and even directly beneath the city. That church is the chapel for the men working in the mine. Every one of the great mines bad its chapel in former days, and it was the pride of the mine-owners to make their chapels as magnificent as possible, so they often lavished treasures on them. This is one of the great mining cities of the world, and one of the three largest in Mexico - Guanajuato and Pachuca being the other two. They say that over a billion dollars in silver has been taken from the mines here in the past three centuries and more since the city was founded, and they are still producing richly."

The young ladies exhausted their stock of superlatives on the picturesque spectacle before them and Mr. Brinkley laughed and told them that their supply of enthusiastic adjectives would be worn threadbare before they got through with Mexico.
"Why, I had no idea there was anything like it on the American continent! It looks as old as - as Jerusalem!" said Mabel.
"When a city gets to the age of three hundred yeirs, or so, two or three thousand years in addition doesn't make an appreciable difference in its looks," said Mr. Brinkley.

Eliot pointed to the street-cars standing at the station. "They run down into the city without any mules, for it is down-grade all the way, and fron the central plaza other cars run in the same way all the way down the valley to the city of Guadalupe, on account of the milder climate. The mules for bringing the cars back are driven down in droves."

As they started, the young people all declared they wished they might stop over and see the place, but Mr. Brinkley said he probably
would on the way back, if they wanted to after seeing Guanajuato, which was finer yet. The air was of a delightful temperature, with an invigorating quality in its thinness which made Harry, as he breathed quickly, say that he could not get enough of it. They wound along the side of the valley, as on a shelf above the city, and in one place they could see, in three successive places below them, the track over which they were to go. They looked down into the busy court-yards of mines, and in one they saw a great herd of mules driven rapidly about. "That is to extract the silver by the old Mexican method, called the 'Pátio process,"" said Eliot. "Patio means court. The ore is crushed and mixed into a sort of paste, and after it has been exposed to the sun and kneaded over by the feet of those mules for several weeks it is ready for the extraction of the silver. Those round towers about fifteen feet high, with light smoke rising out of them, are kilns for roasting the ore. Here is a mining-shaft close to the track. Do you see that man sitting there and cracking stones with a hammer? He is sorting the ore according to its richness, and he gets three reales, or thirty-seven and one-half cents a carga, or three hundred pounds. The quantity is called a carga because it is the regulation load, or 'cargo' for a 'burro' or donkey. You know there is a saying that a burro never dies, but there is an evidence of it," and he pointed to another shaft beside the track out of which a great bucket rose as they passed, hoisted by a mule at a windlass; it held over a hogshead of water, which was tipped out into a trough that conducted it into an acqueduct. "That bucket is made of burro-hides, and the hair is on the outside. It is the primitive way of draining the mines, but since the railway was built coal is brought in pretty cheaply, so that it is used in rumning
pumping-engines for the great mines, like those you see where the tall chimneys are on the mountain-side over there.
"Do you know that this railway actually runs over a bed of silver along here? All this rock-ballast is silver-ore from the Zacatecas mines, of such a low grade that it would not pay to work it, but there are probably many thousands of dollars' worth passed over by these trains."

They lost the city from sight and passed along on their tortuous and rapidly descending way on the slope of the narrow valley, with the dry bed of a stream below. "That is the Zacatecas river," said Eliot.
"River! Where is the water?" asked Florence.
"O, a Mexican river, at least here on the table-land, usually consists more of rocks than water, for the greater part of the year," Eliot responded. "I believe there is a better water-supply in Zacatecas now, but the last time $I$ was there it was so scanty that the water was dipped out of the fountain in the main plaza by the women who come there for it with great jars, faster than it ran in. There is so little room in the centre of the city that they have arched over the river continuously in many places, to give space for additional buildings."

Harry said: "I see a little damp place here and there down in the gravel just about big enough to give an English sparrow a bath."
"Oh how glorious! There is water enough out there !" called Mabel, pointing off into the distance, towards the southwest. They were now just above the city of Guadalupe, nestling snugly at the mouth of the valley, which opened out into a vast ocean-like plain,
out of which isolated mountain groups rose in the blue distance. Several miles away a large lake spread out on the level, glistening in the sumlight like a sheet of burnished Zacatecas silver.
"That lake is a presa, or reservoir, where water is stored, or 'impounded,' as we engineers say, for irrigating purposes. It also gives a considerable water-power at its dam for a good-sized factory, - a woolen-mill, I believe. Just along here is where I first saw the end of the track when they were building northward. I came up here with Major Harrington when he was superintendent of the track-department, toward the end of November, and we celebrated Thanksgiving with a turkey-dinner on his car. It is an interesting sight to see track-laying in Mexico. There are not lots of temporary board-shanties, and the ground isn't covered with tin cans when the camp moves on, as with us. The workmen were all Mexicans and they lived very simply. At night all that the most of them would do would be to spread their petates, or pieces of straw matting, out on the ground, and roll themselves up in their blankets and go to sleep. Favored ones would sleep under the boarding-cars where the officials lived, making their berths between the sleepers. Others would sleep in the culverts and would burrow in the sides of the ditches beside the track, excavating little dens in the earth - which, you see, is very hard nearly everywhere all through Mexico - a sort of gravel consolidated into a substance that is the uext thing to stone. That is the reason why all these cuttings for the track have perpendicular sides, or nearly so. There is no frost to crumble the banks away, and so much money is saved in the work, for the sloping requires a large amount of additional excavation.
"But I was telling about the track-layers. The families of
many of the laborers were with them, and they lived like nomads. Those laborers who had been with the force the longest were the most fortunate as to their quarters. They had been privileged to build little cubby-like domiciles in the shape of platforms suspended beneath the cars and occupying the space between the trucks. These were walled about with matting. These nests were hardly high enough to sit upright in, but the men lived there with their families; that is, they slept there. Some of them had been with the force ever since construction began at the city of Mexico. I saw children playing around, three years old, who had been born in those kennels underneath the cars a few miles north of the capital."

They shortly began to climb another range, where they saw forests of the enormous great tree-like yuccas that Eliot had spoken of, and dense thickets of the nopal, or prickly-pear cactus, covering a large portion of the mountains with their deep green. "They look like a lot of plates stuck together edgewise, one after the other," said Harry.
"That is the most characteristic feature of Mexican vegetation," said Eliot; " and it is one of the national emblems of this country. Do you see this Mexican dollar, with its fine design - an eagle with a snake in its beak and a nopal below? It might be taken to symbolize the slaying of the serpent Tyranny by the eagle Freedom, but it is the Mexican coat of arms handed down from the Aztecs. When that people migrated southward they were told by their sooth-sayers, according to tradition, that when they came to a place where they saw an eagle sitting on a nopal with a snake in its beak there would be their abiding place. After long wanderings they came to the valley of Mexico, and there they saw, on a rock out in the lake, that
which had been predicted. So there they settled and founded the Aztec realm, out of the ruins of which Mexico of to-day has grown. For Mexico of today is composed chiefly of the Aztec and kindred Indian races that, to a greater or less extent, have adopted the civilization of their conquerors. So when Mexico became independent it took for its national emblem the sacred token of the Aztecs."
" And the Mexicans, as a race, sympathize with their Aztec progenitors today, and the memory of Cortez is still so unpopular that no monument has ever been erected to him," said Mr. Brinkley.

All through the day their route lay throngh a country that, for the greater part, was richly
 cultivated, with intervals of rough and rocky upland. Their altitude frequently changed as they wound across the flanks of mountains from one great sunny valley down into
 another. With the varying height the climate varied, but the change in this respect was not sharp during the daylight hours ; on the lower levels the air had a softer feeling, and on the higher they felt its thinner quality, and found that it was cool and bracing out of the sunlight. Eliot also pointed out how the character of the vegetation changed with the changes in height.

Harry had brought along one of the new
instantaneous cameras that operate with a roll of sensitive film, and he found abundant occupation at the various stations, catching the strange-looking scenes; interesting features of building, and the varied groups of people assembled at such places - men with their broad sombreros and gay-hued zarapas, the peasants usually in loose cotton garments that once had been white ; women in cheap calico prints and with the inevitable rebozo about their heads; children with but a scinty shirt that was often a lace-work of tatters, while, at the minor stations, little brown tots were to be seen frisking about in a cherublike state. Then there were beggars in over-plentiful quantity, in all stages of dilapidation and want of repair, with hands extended and whining in pitiful tones words like "Por amor de Diós, señor,
 una corta caridad; un centavito, nada mas, señor !" (For the love of God, señor, a short charity; one little cent, and nothing more, señor!)
"Oh, the poor things!" cried Florence', sympathetically, the first time she saw them assembled in force, and in all their professional regalia.
"Don't give them a cent!" Eliot said. "They are humbugs, every one of them. These beggars are the worst things about Mexico, I believe. They always make a better livelihood than these poor peasants who work hard from daylight to dark for a few cents a day. Why, at Amecameca, one old fraud was pointed out to me as the owner of three houses, and many of the people who nevertheless gave him alms and looked on hin as sort of sanctified by his occupation, knew it, too! The reason why beggars are so plenty in
countries like this is that the people have long been taught to regard beggary as a desirable institution, encouraging the virtue of charity. But to nourish an evil in order that to ameliorate it people may give themselves the pleasure of doing what they regard as a virtuous act is one of the worst forms of selfishness."
"That is well put, Eliot," Mrs. Brinkley said. "The best way to deal with any evil is to seek its cause and try to remove that. And seeing all these poor people everywhere in Mexico, working so hard and patiently, I cannot make that fact agree with what is so often quoted from Lempriere, the French writer, and which I came across in this guide-book: 'The merciful hand of Providence has bestowed on the Mexicans a magnificant land abounding in resources of all kinds - a land where none ought to be poor, and where misery ought to be unknown. A land whose products and riches of every kind are abundant and as varied as they are rich. It is a country endowed to profusion with every gift that man can desire or envy ; all the metals from gold to lead; every sort of climate from perpetual snow to tropical heat, and of inconceivable fertility.'"
"That is all strictly true," said Mr. Brinkley, " and it seems pitiful that where there is such an abundance the wants of all should not be met, and that these poor people should have to toil so to keep soul and body together."
"One reason is, that there is really an aristocracy here in this republic ; that the land is nearly all held by a few persons, in enormous areas like this great stretch of grain-fields that we see now spreading away as far as the eye can reach. Land-owners here are not taxed on what they own, but only on their income from it. So they only care to improve it just enough to give them princely incomes, and these poor peasants are still practically slaves."
"How they must suffer!" said Florence.
"No, they do not suffer so much as we might suppose," Eliot answered. "They are so ignorant that they have no idea of any other condition than their present one, which they suppose to be in the unchangeable order of things. So they are really happier than our working-classes at home who are so much better off, but who, by their intelligence, know how much better situated still are those who do not work so hard. Our workers know about the good things that others enjoy; they read and hear about them every day, and so they want those things themselves. If Mexico ever has a good system of public schools the people for a while will not be so happy, for it will make them discontented with their lot, but that will make them progressive."


## CHAPTER XI.

## A SUMMER AFTERNOON IN JANUARY.



IT was shortly after noon when the train stopped at a busy-looking station. "Aguascalientes," called Eliot; "The City of Hot Waters, is what it means."
"And hot weather too, I should say, by the looks of things," Florence remarked. "This is real summer, is n't it? Look at those delightful green trees!" and she pointed to an avenue of beautiful great alamos, or cottonwoods, as they call the poplar family in the West, crossing the railway track and running off into the distance.
"Yes, we have said good-bye to winter for good, this season, although we shall return to spring-time again by to-morrow. But it is not a city of hot weather here, just as the water is really not hot - only agreeably warm. Aguascalientes has an almost perfect climate, and it is so healthy that they say people never die here ; when they get old they simply dry up and blow away! There is very little difference between summer and winter here."

As the train stopped half an hour for dinner, they all went out for
a promenade on the station platform, and Eliot and Harry ran out to see the ditch of warm water that runs down into the city on one side of the avenue. It was a broad ditch, with smoothly cemented sides. The water was soapy-looking, for people of the laboring and peasant classes were continually bathing in it, singly and in groups. Eliot pointed out a family party, sitting comfortably with the water up to their necks, while their clothing, which they had washed, was drying on the bushes over their heads. "The people here keep pretty clean, for the climate permits them to bathe in the open air the year through, and there are few who do not do it," said Eliot. "The water in that ditch comes from the springs at the end of this avenue, two miles or so from the city. You can see what a volume must come out of the ground by the amount running here, while beside that ditch there runs a covered aqueduct to bring the water to the baths in the city, fresh from the springs. There are baths out there too, and many go out by preference, for the water there is warmer, of course. It cools off considerably before it reaches the city. Now let us run over for a look at the city baths ; they are close by the station."

A few steps brought them to a beautiful garden filled with brilliant flowers, beside a long, low building with arcaded front. This arcade bounded the garden on two sides, and along the edge of the open corridor thére ran a stream of clear water in a channel of masonry, lined smoothly with cement, and highly polished. "Why, this seems to be a swell place!" Harry exclaimed.
"Well, perhaps it might be called so, for only the more respectable classes come here. The peones all bathe out in that ditch, where it doesn't cost anything."

Eliot explained to the man at the door that they just wanted to look inside ; they hadn't time to take a bath, and were strangers who had run over from the train. With a courteous wave of the hand, and a "Pasen Ustedes !" (Pass in, sirs !) that official gave them permission in a way that almost seemed as if it were they who were conferring the favor. Two well-dressed Mexican youths had laid down tickets just ahead of them, and they followed them along the corridor. They entered a place where there was a large oval swimming-basin, or alberca, as it is called in Spanish. It was surrounded by a series of cell-like dressing-rooms and a broad tiled space between them and the basin, which was brimming with limpid water that reflected a cloudless sky. Through the gratings of a handsome archway were seen the green and bloom of a garden beyond. An attendant brought the young Mexicans some things on a tray and over his arm, and they disappeared in one of the rooms.
"There is a large towel, a bath-sheet, a cake of soap, a clean comb and brush, and a little bottle of oil for each, and the whole thing, bath and all, costs only a few cents - not over a real', I believe, or twelve and one-half cents Mexican."
"That is cheap enough!" said Harry.
"This place is run by the city, and there are dozens of Mexican towns with fine public baths such as you could not find in the largest cities in the United States."
"By the city? Why, this beats the Athletic Club swimmingbath! I should say our cities might learn something from Mexico!"

When they entered there was no one in the bath, but while they were talking a swimmer suddenly shot up out of the water, followerl by a companion.
"Where in the world did they come from?" demanded Harry, with wide-open eyes.

Eliot laughed and showed him inside one of the dressing-rooms, a large apartment, with steps descending into a tank of water, four or five feet deep, out of which a tunnel-like arch, several feet long, ran under the tiled walk out into the tank. "They dove out through that place," he said. In the dressing-room there was a separate tank for use with soap, which a notice said was forbidden in the alberca and the connecting water.

Returning to the train, they found the young ladies looking at some remarkably life-like representations of poultry - hens, chickens, roosters, and other familiar fowl - little images covered with feathers very skilfully and naturally applied, and the positions of picking up grain, scratching, crowing, etc., imitated with exactness. And all through the day at every principal station they found some pretty specialty of the locality offered for sale. At one place it might be some peculiar toys or ornaments, like nests of nicely woven little baskets fitted snugly into each other, at another some odd kind of pottery; again it would be something in the way of apparel, like embroidery, lace, or leather-work; and still again there would be sweetmeats of such a kind as could be only found at that place. At one station there were brought around some things that looked like pieces of some coarse-grained firewood, sawed into sections three or four inches long, and soaked in some dark liquid.
"What can those things be?" asked Florence. "Surely not something to eat?"
"They look like sections of cross-ties," said Harry.
"Well, I shouldn't wonder if these people could even manage to
fix up a cross-tie so as to make it taste pretty nice!" laughed Mr. Brinkley.
"In the pursuit of knowledge let us try some of it!" said Mabel.

So a considerable quantity was bought for three cents. "I told you so !" shouted Harry, in mock triumph. "Cross-ties boiled in molasses, as sure as fate!"

It was some soft vegetable substance, with a coarse fibre; it was easily cut, and when chewed yielded an abundance of watery juice that tasted like a very thin syrup of brown sugar. "What a strange thing for confectionery!" said Mabel. "What can it be?"
"Well, it would probably not be exactly the thing for Huyler's!" said Eliot. "It is the root of the mescal maguey which we have seen growing all over the country to-day, on the uplands; the kind of aloe, or century-plant, whose roots they distil mescal from. The roots are very juicy and sweet, and boiling them a little makes them like this. The common people are very fond of it. Like sugarcane, they can chew on it for a long time; it 'stands by' like the chewing-gum of the North!"

It was along past four o'clock when they saw, from the summit of a divide, a pleasant landscape stretched below them ; a wide valley with its inevitable rim of mountains; there were spread out upon the brown plain of the levels two or three gleaming lakes set amid what looked like other lakes of soft spring-like green, in the shape of great fields of young barley. Out of the valley there rose two large towers close together. "That is the great church of Lagos, the 'City of Fools,"" said Eliot. "But Lagos doesn't mean fools; it is la Ciudad de Lagos, the City of Lakes, but its nickname is 'La Ciudad
de los Tontos.' Tontos means fools. That is the reputation that Lagos has all through Mexico, and all the stories of absurd sayings and doings, and of what we would call Irish bulls, are located there. Some of them appear to have a foundation in fact, too. For instance, there is a bridge upon which there is an inscription to this effect: 'This is a bridge, which, in the year so-andso, was built here!'
"One of the best stories is that of how a Lagos man moved a hole. Near his house there was a large hole in the ground, and he did not like the looks of it. So he decided to remove it. He therefore filled it up with earth dug from the ground adjoining. But this made a second hole. He filled that up with the earth dug from a third hole, in the kept on, and step by step the hole farther and farther off, until finally he it to the river, where he got rid of it
" At one time a considerable crop of on the roof of their great church. After deliberation as to the best way to get rid of the grass, the Board of Aldermen voted to buy a cow, hoist her up onto the roof, and let her eat away the grass !
"One of their principal buildings, the City Hall, I believe - was not in ex-
same way. So he slowly grew had moved entirely ! grass grew much
actly the position they wanted it; it was somewhat too near the street. So the aldermen called all the citizens to assemble and unite in giving it one grand push; that would move it back. But how would they know when they had pushed it far enough? A bright idea struck the alcalde; they could push better without their great broad sombreros on their heads and their zarapes about their shoulders, and so, obedient to his command, they went around to the rear of the building and carefully laid down their sombreros and zarapes in a long line. When they got the building moved to that point, it would be just right. Then they all went back to the front side and prepared to join in a mighty push. While they were all pushing, grunting, and puffing in concert, some thieves came along, and ran off with all the sombreros and zarapes, making a rich haul. When the citizens repaired to the rear again to see what result their efforts had met with they were astonished to find their things all gone. Alas! they had pushed too hard, they said ; their powerful efforts had indeed moved the great stone building, but had moved it so far as to pass the line, and their things were now all hopelessly crushed beneath the massive walls!"
"I learned a curious fact in photography from a picture of that church in Lagos," said Mr. Brinkley. "It is a grand church. When Jackson, the Denver photographer, took his magnificent series of Mexican views several years ago, that church was one of the subjects. I happened in at Ticknor's one day, when my friend Ware, the editor of the American Architect, showed me a copy from that photograph which he had just had made for reproduction in his journal, together with Jackson's original. Looking at the façade in the photognaph by Jackson, one could see only a uniform mass of
dark shadow in the deep recess of the great doorway. But Mr. Ware held it up so that the light shone through it as through a transparency, and then could be seen all the detail of the rich woodcarving of the doors. Then holding up the photograph of the photograph, he pointed out the same effect when the light shone through that. This proved that the lens of the camera is sensitive to things which the eye cannot perceive, and that although it may be impossible for the eye to see certain things in a photograph, nevertheless they are still there."

At the station in Lagos there were tramway cars in waiting, as they found at nearly every considerable place
 along the line; familiar-looking American-built cars such as may be seen nearly the whole world over, now-a-days. In Mexico, the street-railways are called tranvias; the second part of the word is literally translated into Spanish, whilst the English tram is translated by the resemblance in sound into " tran," which is appropriate in this connection, for it is used in the sense of motion, as forming the root of words like transit, transport, transfer. The English word tram, however, has a quite different origin, since it means coal-wagon, and tramway is supposed to have originally been a road for coal-wagons. It is also supposed to have come from the name of Mr. Outram, who was connected with the collieries at Newcastle, so that the tram-roads were at first called Outram roads.
" What beautiful-looking fruit!" cried Florence, at sight of the
various fruteros, or fruit-venders, who gathered about the train with great basket-fuls poised on their heads. "It makes my mouth water!"
"Yes, indeed," agreed Harry. "I mean to try every kind of fruit I come across in Mexico!"
"And if you are the kind of boy I've always taken you for," said Eliot, " you - will like nearly every kind, too ; - particularly these chirimoyas," he added, as they took on board the greater part of the large and varied stock of a slender, brown-skinned and gentlevoiced youth with large dark eyes, whom Eliot succeeded in beating down in his prices about one-third. "Just out of principle," he said, " for these people would not know what to make of it if you did not do it ; they might suspect you of some sinister motive, and it does not pay to get yourself disliked! But this youth surprises me in selling out nearly his whole stock at reduced prices! I think he must have been under American influence! The common people have no idea of the principles of wholesale trade. If you want to buy things in quantity, not only will they make no reduction, but they often insist on charging a higher rate, because it puts them to so much more trouble!"
"Really, such unworldliness is delicious! - But truly, are these chirimoyas? You know I have been hearing of chirimoyas from Eliot for the past six years," said Mabel, " and I have despaired of ever seeing one."
"Let us try these other things first, and save the chirimoyas till the last," Eliot suggested. "This maméy is a good thing to begin with."

They all gathered around the big basket and watched Eliot
with curiosity as he took a large brown fruit with a rough, shell-like covering, and oval-shaped, and cut it lengthwise into several slices, as is usually done with a melon. It disclosed a large, chestnutcolored pit enclosed by a melon-like flesh of a deep salmon color. Each took a slice and tasted it. "How odd!" said Mabel, critically. " It has a sort of cooked taste."
"I think it's real nice ! " Florence declared. "But what does it taste like? Something familiar, and I can't think of it!"
"Ready-made pumpkin pie; that's just what it is!" shouted Harry.
"Harry has it! It does have a strong resemblance, with the addition of a peculiarly juicy, fruity sweetness," said Mabel.
"Now next! A chico zapote apiece will be in order," and Eliot handed around a kind of round fruit with a rough brown earthcolored skin, and about the size of an ordinary peach. "They look like potatoes," Harry remarked.
"These are especially esteemed in Mexico," Eliot explained. Chico zapote means small zapote. There are numerous kinds of zapote, and we have two more on our list. The maméy is a zapote, I meant to tell you." Mabel and Florence both declared the chico zapote delicious, with its delicate flavor and almost sugary sweetness, but Harry accepted it with some reserve. "I like it," he said, " all except its coarse grain, like a cat's tongue, as if its rough skim had struck in. Something like some of our coarse pears, you know."
"Now for a zapote prieto, or dark zapote!" and Eliot took up a soft, rather flabby-looking fruit with a thin, dull-green skin. He tore it open and the interior was shown to be a dark, soft and pasty-
looking substance. "Why, it's rotten!" cried Harry; " you'll have to select another one, although they all look about the same," and Florence declared that it was a most horrible-looking thing.
"O that's all right!" said Eliot; " that's the way it natwally looks when it is ripe ; you must try everything, you know !"

Harry was the first to venture it, and the dark streaks that it made about his mouth made the others laugh merrily. "You remind me of a small child that has been trying the quality of his mud pies," Eliot told him. "A spoon would be better to eat this with," Eliot suggested, " and, indeed, it will come in very handily for some of the things further on." Some teaspoons were bronght, and they all declared that the zapote prieto was very nice after all.
"We had better call it the Singed-Cat fruit," said Harry, "for it is better than it looks."
" It is really a very refreshing fruit," said Eliot. "And it is a very nice dessert dish, fixed up with vanilla and sugar, and perhaps some spice or other. It also makes a very nice water-ice."
"I should think it would really make a very nice-looking dish on the table, and resembles chocolate ice-cream in appearance," Mabel said.

Next in order came a fruit closely resembling the maméy. "This is our last zapote for the present ; it is a zapote borracho," and a slightly mischievous look might have been seen coming into Eliot's eyes as he said the words. Its interior was a bright yellow, instead of the deep salmon of the maméy. No one took kindly to this fruit, although Harry said that he liked it when he first tasted it, but then he changed his mind, saying it was too mealy.
" Zapote borracho means ' drunken zapote ; ' it is so called be-
cause eating it makes a person intoxicated. But don't be frightened," Eliot said to the young ladies, laughing, as a look of consternation came into their faces. "It takes two or three to produce any effect, and you have only eaten a mouthful. Of course the fruit does not contain alcohol, but some kind of narcotic ; probably opium, just as lettuce does. These things here are granaditas; you can't help liking them," and he handed around some fruit about the size and shape of eggs. They were hard and shell-like, something like gourds, and they had a beautiful smooth surface of rich yellow, with crimson cheeks. Cutting off the end, like that of a boiled egg, the interior was found to consist of a mass of seeds enveloped in soft pulp, something after the manner of a gooseberry. This they ate with a spoon. It had an exquisite flavor, as was unanimously agreed, and Eliot told them they might eat a dozen apiece, if they liked, without any harm. "It is the fruit of the passion-flower," he said, " and it is worth remembering, if any of us should happen to be troubled with a cough while we are in Mexico, that this egg-shaped shell of the granadita makes one of the best of pectorals if steeped in a cupful of hot water. Now we must be ready for the chirimoyas!" and Eliot picked out a large fruit, irregular in shape, "about the size of a base-ball," as Harry said, dull green in color, and covered with large scale-marks, something like an alligator skin. " It is in various sizes, you see," said Eliot, taking up one no larger than a peach, and pointing out a big one in the basket, nearly as large as a cocoanut. He cut the fruit into quarters and handed it round; it was white, soft, and very juicy, much like the flesh of a Bartlett pear, but with just the trace of a fibrous texture from the core outwards, as in a pineapple. Embedded in the fruit at inter-
vals were large dark seeds about the size of beech-nuts. Eliot recommended the use of spoons in eating this.
"Heavenly!" called Florence. "But what is it like! Peach ice-cream with the coldness taken out of it, I should say; and I can detect strawberry flavor, too!"
"It is perfectly delicious," Mabel agreed. "But it seems to me there is just a suggestion of banana about it, also !"
" And pineapple, too !" added Harry.
"Yes, you can find in it a trace of any fruit you like," said Eliot. "I agree with the definition of the chirimoya to be found in the Spanish dictionary. 'The most delicious of American fruits,' is all it says. A Peruvian friend told me they had this saying in Lima:

> 'Hay dos cosas en la vida que nunca se olvida: la felicidad y la chirimoya.'

Which means: 'There are two things in life that are never to be forgotten : happiness, and the chirimoya.' We boys used to say that there is only one fruit that is finer than the chirimoya, and that is the mango ; and there is only one that is finer than the mango, and that is the chirimoya! Perhaps it is well that the chirimoya only comes just as the mango goes, for it would be difficult to make a choice between them, and to have them both at the same time would be an embarrassment of riches."
"But I thought you agreed with the Spanish definition, and that would leave you no choice between the two!" remarked Florence.
"O yes; there is a good loop-hole there! It says the most delicious American fruit, and the mango is not native to America; it is an importation from India, or China, just as the whole citrous
family - oranges, lemons, limes, etc., were introduced from the Old World. The bananas are said to have been found in the New World at the time of discovery, and it is difficult to find out which continent they are native to. As they are seedless, as a rule, it shows that they must have been cultivated for ages and ages, and they must have been taken from one continent to the other by the hand of man, which indicates that there must have been communication between the Old World and the New in times before Columbus. But all the fruit we have just eaten is purely native to tropical America, besides which there are the pineapple and many other nice things. So the aborigines were not so badly off as the wretched Australians, for Carl Lumholtz told me that in that country there was hardly an edible fruit. Nearly all these fruits came from the Tierra caliente, the hot country of Mexico, lower down than this region where we are, which is called the Tierra templada, or temperate country, while the City of Mexico is so high as to be in what is called the Tierra fria, or cold country. This last term we should hardly agree with, for it is really most temperate. But the method of division here adopted is according to vegetation, and anything above the altitude where the date-tree does not ripen its fruit is called ' cold.' "
"Is there any good fruit peculiar to the high table-land ?" asked Harry.
"O yes, there is the tuna, or prickly-pear, which grows in enormous quantities, but it does not begin to ripen until May and June. There are several kinds, crimson and white, and they are nice and refreshing; something like a water-melon in flavor. But woe be unto you if you tackle one for the first time without experi-
enced assistance, for thousands of little prickles will get into your fingers and you will have an all-day contract getting them out!"
"Here is one more native American fruit of the tropics, but we will wait until supper for that. It is the aguacate, which they call the 'alligator pear,' in the British West Indies. But it has no resemblance to either an alligator or a pear, and they gave it that name because some ignorant man must have mistaken the word for ' alligator' when he heard the Spaniards pronounce it. Agracate is a native Aztec, or Nahuatl word, like chocolate and tomato, for both of which we are indebted to Mexico. The original of tomato is jitomate, (pronounced he-to-mah-tay). You can recognize a Nahuatl word in the termination 'ate,' originally ' atl,' which is one of the most common in the language. The aguacate might properly be called 'salad fruit,' for it makes a delicious salad. I saw Sam buying some nice fresh tomatoes, so I will hand these aguacates over to him and give him some pointers on salad-making."

As the train departed from Lagos, where groups of tall, fullfoliaged trees made pleasant shade beside a pretty stream near the station, Eliot called to them to look out on the left. "You will see a sight that will show you that the good folks of Lagos are not such fools, after all. Do you see all those maguey leaves laid out close together on the ground in that lot? Well, that is an ice-factory!"
"Why, how can they make ice that way?" asked Harry. "I thought they had to have ammonia, and long coils of pipe, and a lot of machinery to make artificial ice."
"Well, they do it in a much simpler way here. All they have to do is to pour water into the shallow troughs formed by those leaves as you see them lying there; pour it in at night, and in the
morning you have your ice! And that too, in a country where the temperature never falls to freezing-point!"
"But how can that be possible?"
"It is because the air here is so dry. The leaves are good conductors of heat, and the dry air makes evaporation so rapid that it quickly deprives the water of its heat and converts it into ice. In the morning they collect it and use it in making ice-cream and waterices, which the Mexicans are very fond of. In nearly every city and town you will see men going around the streets with the freezers balanced on their heads and crying out 'Nieve! nieve!' (pronounced nee-áy-vay) which is Spanish for snow."

They sped southward through the broad valleys of the Bajio (pronounced Bahé-o), as that portion of the table-land is called along which the railway passes between Lagos and Querétero - a depression, the word means. Its altitude is in the neighborhood of six thousand feet, giving it a mild climate of perpetual summer, withont the torrid heats of lesser elevations in the tropics. The air was delightfully soft, and the slanting shadows of late afternoon made the mountains to the westward grow vague and dusky, while the detail of the seamed and rocky flanks of the ranges to the eastward were brought out ruddily in sharp relief. Twilight had turned into darkness before they reached the large city of Leon. Supper was served somewhat later than usual, after they had left Silao, where there was a large crowd at the station, for it was the fashion there for a goodly portion of the city to turn out to see the trains come in at evening.

Eliot gave an approving smile when Sam's dusky face appeared in the doorway as the salad was brought on; fresh sliced tomatoes
mingled with the yellowish-green of the aguacates, and slightly sprinkled with chopped onions. They all declared it the most delicious salad they had ever tasted; the aguacate element made it perfect. "I expect in the hands of a culinary genius like Sam the aguacate will be well utilized while we are in Mexico," said Mr. Brinkley, and the responsive grin of the cook never showed a broader expanse of gleaming teeth.
"If you have any left, just send them in," said Eliot. "Harry here, athirst for information and experience, wants to know more about the aguacate. You see," he continued, as the fruit was placed before him, " there are two varieties; these large ones are called paguas. While the regular aguacates have a thin skin these paguas have a rind that is almost like a shell. But there is no material difference in taste." As he cut it open a large pit was exposed, about the size of an ordinary hen's-egg. "Like the greater proportion of the tropical fruits of this country, it runs very largely to seed. These aguacate-pits are said to make a good remedy for rheumatism. The aguacate is sometimes called 'vegetable butter,' and the Mexicans often spread it on their bread, or tortillas. It is a good substitute, particularly in the hot country, where butter is almost unknown. Just try it!"
"It does seem something like butter, that way," said Mabel, who had declared the agnacate by itself rather insipid. "It has a fresh buttery flavor, with just a suggestion of spiciness."
"It seems curious that it should resemble butter so when it is not in the least greasy," said Florence.
"Mashed up and put into consommé it makes a very nice thick soup, and there are various other ways in which it can be utilized," said Eliot.

The train slowed up while they were still at the table, and before it came to a stop they heard a confusion of cries outside, the burden of which was "Frésas! frésas!"
" Irapuato!" said Mr. Brinkley, " the town of perpetual strawberries."
" Yes," said Eliot, " there are strawberries to be had here at the station every day in the year."

They looked out, and beside the train were a score, or so, of peasants, men and women, offering baskets of fine, large strawberries, and calling "Frésas! Frésas!" at the top of their lungs. Several baskets, containing something like two quarts each, were bought for two reales, or a peseta (twenty-five cents) apiece, and one was placed on the table before them.
"That is why I ordered supper later than usual tonight," said Mr. Brinkley. "I wanted to finish off with strawberries. I prefer to eat them just as they are, for they are so sweet that to add sugar to them seems as vain as the gilding of refined gold. Strawberries are sweetened here by a flood of unfailing sumshine."
"These were made to be eaten, and not simply sold, like most of our ' market-strawberries' at home," said Eliot.
"Aren't they good, though ! " said Harry. "What a country for fruit!"

## CHAPTER XII.

IN THE CITY OF THE AZTECS.

"W AKE up, Harry! We shall
be there in half an hour!"
Harry was sleeping soundly, and Eliot had given him a shake. He opened his eyes drowsily and said "Where?"
"Why, in the City of Mexico!"

Harry jumped up, alert with excitement. When he stepped out onto the "quarter-deck" with his cousin he exclaimed, with a shiver, "Why, it's cold!"
"Yes, we're back in springtime again, as I told you. Summer or winter, the mornings are cool here."

The train was whirling up a cloud of thick, fine dust, and they speedily went back inside, where the rest of the party soon joined them. It was just growing light. They were traversing a wide, level plain, bordered by high mountains. Long lines of trees, bordering fields and highways, and fresh with the light green leafage of early spring, stretched off into the distance. The ground was dry and brown, except where there were patches of green here and there. "Spring is under way, now, as you can see by the trees,
the most of which lose their leaves in December and strike them out again towards the end of January, at this altitude. But you see, contrary to our springtime procedure, the trees turn green before the grass does; months before, in fact. For the grass will not spring up green until the rainy season sets in; towards the end of May, or early in June."
"This does look as if we were getting near a big city," said Harry. The buildings began to grow thicker on either side ; there were factories, and new streets with straggling rows of houses lately built, or just going up. These houses were mostly of one story, with plain fronts, and windows guarded with iron gratings.
"Yes, Mexico is one of the great cities of this continent. It is nearly as large as Boston ; Frank Jersey wrote me lately that it had almost four hundred thousand inhabitants now. But I had no idea it had spread way out here. All this was open fields six years ago. Mexico is growing like one of the young giant cities of the West."

The train began to move at the slow pace which is always taken in the approach of an important terminal, as if in sedate respectfulness to a large population. They passed by railway machine-shops and storehouses, with long lines of freight and passenger cars, locomotives under steam, and finally came to a stop under a great iron roof supported by rows of handsome stone piers, leaving the structure open to the air at the sides. They all went to the door to watch the usual sight that attends the arrival of a train at its destination, and it did not differ materially here from similar scenes in the United States. "I wonder if anybody will be here to meet us at this early hour," said Eliot, scanning the faces in the crowd of people waiting' on the platform and looking expectantly towards the cars. "Yes-
here come Frank Jersey and his wife - and who's that young Mexican with them? His face looks familiar, but I can't place him." Eliot jumped off to meet his friends, who hastened towards them. There was a hearty greeting, with a clasping of hands; then Harry perceived a look of recognition come over Eliot's face as his eyes met those of the young Mexican, and with astonishmemt he saw the two fall across each others shoulders in an embrace, giving mutually and simultaneously three or four affectionate pats on the back with the right hand.
"That is the way friends meet in Mexico, after an absence," said Mr. Brinkley. "Eliot couldn't do it better were he to the manner born!"
"Pero Nacho! Que niño tan crecido! Quien pudiera reconocerte!" (But Nacho! What a grown-up boy! Who could have recognized thee!) exclaimed Eliot. Mr. and Mrs. Jersey advanced to greet the others. They were old friends of Eliot's and had become intimate with Mr. and Mrs. Brinkley on their previous visit to Mexico, where Mr. Jersey was in business. Mrs. Jersey and Mrs. Brinkley kissed each other first on one cheek and then on the other. "Costumbre del pais!" said the former, with a laugh, and then, with her husband she was made acquainted with the young ladies and Harry. "You see we are out for our morning run on horseback," said Mrs. Jersey. "Frank and I make it a point to ride ont regularly every morning, and it keeps us in splendid health, even in this unhealthy city."

They were both in riding-suits; she with the usual ladies' habit and a simple jockey cap, while her husband wore a short, snug jacket, close-fitting trousers spreading out over the feet, and a broad-
brimmed, high-crowned sombrero. "I see you still ride Mexican style!" said Mr. Brinkley.
"When you are in Rome, you know!" said Mr. Jersey. "Besides, it is the most comfortable way.
 But for charro, just look at our friend young Andrade, (pronounced An-dráhthay) who came along with us this morning!" The young Mexican, a tall, stalwart, and handsome young fellow with large, velvety eyes, was dressed in a suit cut like that of Mr. Jersey's, but with a double row of silver buttons set close together down the trousers-seams, and his sombrero was adorned with a heavy silver band and a deep border of richly embroidered silver work around the brim.
"What a gorgeous creature!" whispered Florence to Mabel, as he approached with Eliot. "My friend, Señorito Don Ignacio Andrade," said the latter, introducing him. The young fellow answered in perfect English, with hardly the trace of an accent. Remarking upon it, Mrs. Brinkley asked him where he had attended school in the United States, and he replied that he had never yet been north, but hoped to soon.
"These young Mexicans are marvels at learning English," said Eliot. "My friend Nacho here was only Harry's age when I saw him last, and now he has grown into the young giant you see before you."
"You must join us at breakfast," said Mr. Brinkley to his friends, as that meal was announced while they were talking. The invitation was accepted and, as they seated themselves at the table, Mr. Jersey said to Mr. Brinkley :
" I received your telegram, and have engaged good rooms for you all at the Hotel del Jardin. The hotels are so crowded now it was a mere chance that I got them."
"We are in luck, then. Although it might be more comfortable living on the car, I decided to go to a hotel in order to give the young people a chance to see what it is like. And then they would be nearer the centre of the city."
"You must let us do all we can to make your stay pleasant," said Mrs. Jersey. "The young people must join us in some horseback excursions out into the country. How would tomorrow morning do for the first one? Frank will see that good horses are engaged."

This was agreed upon. The young Mexican placed his own services at their disposition in the most charming manner, and said he had a younger brother of about Harry's age, and the two, he was sure, would make good friends. Harry was delighted at the idea of a Mexican boy companion, and Mr. Brinkley begged Don Ignacio to bring his brother around at the earliest opportunity.

By ten o'clock they were ready to go to the hotel. Their friends, who had left them shortly after breakfast, had ordered carriages for them. How fascinatingly novel did everything appear to the eyes of the young people, who were now passing for the first time through the streets of a Mexican city. At such a time every detail that differs from those of the scenes one has been
accustomed to makes a vivid impression, and even to the three who renewed their acquaintance with familiar sights, it had the effect of novelty.
"There seems to be a magical influence in the air of this place," said Mrs. Brinkley, "and it always gives me the sensation of taking part in a stage-spectacle." And indeed, one's first impressions of the historic city, the oldest capital in the New World, are apt to be of a theatrical order. It all looks so strange, so different from what has been experienced.
"For all I've read about it, and for all the photographs I've seen, I had no idea it was anything like this," said Mabel. "Now with London it was quite different. At the start, it seemed as if I had always known it, and was returning to a place where I had once lived. I seemed to recognize nearly everything I saw there."

The sun, pouring down its dazzling light from a cloudless sky of deep blue, seemed as high up from the southern horizon, even though so early in the year, as it was in midsummer in the home-latitude. The streets were straight, and broad at first, but narrower as they approached the centre. The buildings were mostly two and three stories in height, some were plain and the stone fronts of others were elaborately carved, and others still were covered with stucco, moulded or stamped into intricate arabesque patterns. All the windows were very large, and opened like doors upon iron-railed balconies where women leaned by the hour looking out over the busy life of the street. On all sides were stately church-towers and beautiful glittering domes covered with glazed tile. In the streets were motley crowds. There were many stylishly dressed people passing to and fro, mostly with dark foreign faces. Ladies were


A DOORWAY IN MEXICO.
frequently seen without hats, their heads gracefully draped with mantillas of black lace. Many horsemen were met, dressed for the greater part in the style of their friend Andrade, their horses stepping lightly and decked with an abundance of stamped leather-work, rich with silver decoration, and bright-hued zarapes rolled across the saddles behind them. Multitudes of humble-looking people were in the streets, mostly with Indian features, and dressed in thin garments of cotton, usually very dirty and often very ragged. Many of these men were running along at a steady dog-trot, bending over with heavy burdens carried on their shoulders, such as great cases of goods and large trunks. In many cases, straps across their foreheads helped sustain these loads. Others trotted by on their way to market, with loads of vegetables and fruits, and some of these carried great cages of wicker-work crowded with live poultry, while outside there dangled bunches of live fowl with legs tied together and heads down, resignedly bearing what must be torture. Herds of shaggy burros trudged patiently in from the country laden with produce packed upon their backs, and other herds carried charcoal and build-ing-stone. On the corners stood slender and youthful-looking policemen, in neat, military-looking uniforms of dark blue, and amiable faces, quite in contrast with the burly guardians of the peace at home. A battalion of troops passed rapidly by with a great clatter of drums and shrill music of bugles ; the soldiers short and slouchylooking, and proceeding at a quickstep.

They passed by a grand equestrian statue standing in a broad circular space whence there radiated wide, straight avenues, one of them lined with tall trees. They rolled from the rumbling, rough cobble-stone pavement onto a smooth expanse of asphalt, and the

transition made Harry think of the sensation of crossing a bar from the tossing seas of the ocean to the smooth waters of a harbor. They passed a long, park-like public pleasure-ground, which Eliot said was the Alameda - a name commonly designating a public garden, and coming from the word alamo, or poplar, with which tree it was customary, at first, to shade such places. The alamos and ashtrees here were bright with fresh young foliage, and they caught long vistas along the shady alleys that crossed the place. Nearly every open space they passed was utilized by a little city garden, with bits of fresh green lawn, fountains, and bright with flowers, while tall, broad-leaved bananas, young date-palms, and fantastic cactus growths gave an intensely foreign aspect. The churches and the great buildings that were formerly convents, together with many other old and massive structures that had been standing for one, two, and three centuries, were stained with hues and tints that had from time to time been applied in successive coatings, making an indescribable intermingling of colors that,

under the intense sumlight, had the charm of variegated tapestry. Often, as they quickly passed a building they would catch momentary glimpses of a sumny inner court, surrounded by arcaded galleries of carved stone-work, with flowering plants in pots or great terracotta jars, along the balustrades. Everything seemed to be laughing with blossoms and sunshine.

They finally drew up at their hotel, a massive structure of two stories built along two sides of a large garden that, on the side where they entered, was separated from the street by a high wall. They passed along a broad stone platform where clusters of guests, evidently Americans for the greater part, were lounging and chatting. In the angle of the two wings they went up a stairway to a corridor along the outside of the second story, to their rooms, which they found consisting of apartments of two, overlooking the
 street on one side and the garden on the other. They were comfortably furnished, and Eliot pointed out that they would have the benefit of the sunshine all day; a most desirable thing in the City of Mexico, where the thin air made it chilly and unhealthy in rooms where no sunlight entered. "This hotel is one of our great improvements since you were here, Eliot," said Mr. Jersey, who was on hand at the hotel when they arrived. "But it is not so large
as it looks, and they are going to double or treble its size, they say, with new wings and an additional story. And then we shall still need a hotel of several hundred rooms to accommodate the travel coming this way. You must remember this place, Eliot? How it would make the old Franciscan fathers stare to see the change!"
"O yes ; this is the old garden of San Francisco." And he explained to the others how the building was remodeled from a portion of the old Franciscan convent, one of the largest in the country, and covering many acres in the heart of the city. When the property was confiscated by the government, streets were cut through it and it was broken up into lots.
"If the young ladies would like, we will run up onto the roof
 yachtsman here would put it," said Mr. Brinkley.

From the flat, tile-paved roof of the hotel they looked off over the city. The level expanse of buildings was relieved by dozens of
domes and towers in great variety ; island-like clumps of trees rose from plaza gardens here and there, and all around the valley there towered ligh mountains. But almost the first to attract their eyes, and enchain them in silent admiration, was the glorious spectacle that presented itself off towards the southeastward, - the two great snowy summits of Popocatepetl and Ixtaccihuatl, "The Smoking Mountain " and the "White Woman," as the names given them by the Aztecs signified. Their forms contrasted strongly; the former stood isolated in a tall, symmetrical cone; the latter spread out rugged and Alpine-like, its irregular contour showing at once whence came its name, for it resembled the shape of a woman lying at full length and shrouded in white. The effect of the dazzling snow mantles was singularly pure and gleaming in the transparent air and against the clear sky. The grand summits seemed as aerial as clouds, and were whiter than any clouds in their crystalline splendor.
"You pronounce their names, Mr. Jersey, somewhat differently from what I have heard before," said Mabel. "It is difficult, at the best, to adjust the tongue to all those syllables, and any change quite upsets one's ideas."
"I was giving them the original Nahuatl pronunciation that you will hear out in the country all through the valley: Popòcatépetl and Ixtaccihnatl ; accented on the second and fourth syllables of the former, and third of the latter. But here in the city the Spanish influence has changed the accents, so that the last syllables are accented instead, and the pronunciation is commonly: Popocatepétl and Ixtaccihúatl."
"Domes everywhere," said Harry, looking out over the city. "Even this hotel has one. How queer!"
"That is just what I meant when I said that I would show you something curious," said Mr. Jersey. "When this building was a part of the old Franciscan monastery the corner there was one of the chapels, and when the structure was remodeled into a hotel they let the dome stand, probably for architectural effect, which is certainly very good from the street."
"It is really a beautiful dome. And the effect of that pattern of large yellow ornamentation on a ground of dark blue is rich. It is a pity they are letting some of the tiles drop out. But there is a common stovepipe thrust out at an angle through the side of the cupola, and smoking black smoke! What can that be for?"
"The kitchen for the hotel restaurant has been established in the dome, and they have in it the uncommon feature of a modern American range that burns coal, in place of the universal charcoal that requires no chimney, as you will see on looking over the roofs around here. And charcoal is really the thing for this place. A few American families here have tried ranges, but they find that they heat up terribly, and it gives the cooks pnemmonia when they go out into the thin, cool air. There is a good reason for the most of these Mexican customs that strike us so behind the times at first thought."

After dinner Eliot took Harry out for a stroll while the ladies took a carriage to do some shopping and Mr. Brinkley was occupied with some business matters. They dropped in to see Mr. Jersey and he joined them, saying that after so long an absence Eliot would need a pilot as well as Harry. "And I want to have the pleasure of seeing how the changes strike you," he added.
"How is it I keep bumping into people as I pass?" asked Harry, after a while.

His companions langhed. "I ought to have told you," said Eliot, " that here it is the custom, not only for teams in the street to turn to the left when they meet, as they do in England and Canada, but for people also on the sidewalks."
"They have a way of doing some things quite different from our way," said Mr. Jersey. "One custom is just as reversed as that of the Turks who shake their heads for yes, and nod for no. There! See that man beckon to somebody across the street? He is simply giving him a passing salutation. If he wanted him to come across to where he is, he would wave his hand away from him, like this, which we at home would take to mean, 'Go away!'"
"There's a man standing in a window and clapping his hands. What does he mean by that?"
" Oh !" said Eliot, " he's calling a carriage from the hack-stand over on that corner. It is a 'handy' custom indeed, for the noise is very penetrating and quickly attracts attention. It is curious that here in America there should be a custom 'handed down,' so to speak, from the distant Orient, coming from the Arabs through the Moors to Spain, and brought by the Spaniards to Mexico. They clap the hands for a waiter in a restaurant, a servant in a house, or for anything else of the kind. With us we either have to yell, or whistle, or sit still and wait."
"These stores seem to be as good as you will see anywhere," said Harry. "Great plate-glass windows, and nice-looking goods displayed in them."
"And don't fail to take note of the number of book-stores," said Eliot. "It seems as if there must be as many as there are in Boston. Charles Dudley Warner said that the book-stores of a city were a
gauge of the intelligence of its inhabitants. So Mexico must have a large reading public. Frank, I'm impressed with one thing, and that is how stirring and bustling the city has grown. There are bigger, metropolitan-looking crowds in the streets, and they hurry around as in an American city. And these handsome new buildings going up everywhere! These sidewalks, too, along here, so smooth and easy to the feet; such a change from the uneven old stones. And those level wooden pavements."
"There are several miles of those, but wood doesn't do well for pavement in this climate. We shall soon have one hundred and fifty kilometers of asphalt blocks, though."
"Then Mexico will be a cleaner and better paved city than either New York or Boston."
"Hello, there are two leaning towers !" exclaimed Harry.
"If you should see any that do not lean it would be more of a curiosity in this city!" said Mr. Jersey. "Those two towers belong to the church of La Profesa, and are good samples. Now look back to that corner at that handsome, richly carved building. That is the Biblioteca Nacional, the National Library, and the fence in front looks as if it were running down hill. But you will see that the building itself is lurching over like a ship at sea under a strong side wind. And see the line of the Portales, that long block with the arcades, ahead, sagging like a buckboard under the weight of two fat men!"
"What's the reason? Earthquakes?"
" No, though it looks like an arrested earthquake. It is because this city, with these enormously heavy-walled buildings, is built on a marshy foundation, and the settling has been uneven."

They walked along through the quaint old arcades, or portals, where the sidewalks ran under the first story of the buildings, a feature common to most Spanish and Spanish-American cities. At the central plaza, the Plaza de Armas, Harry recognized at once the great cathedral, from the many pictures he had seen. It is the largest church-building in America, and, with its annex, the Sagrario, or parochial church, fills one entire side of the great square, with a beautiful garden surrounding three sides of the edifice. In one part of the garden was a heap of ancient building-fragments; grotesquely carved stones, including representations of serpents, toads, and fantastic idols, - remains of the great teocali, or Aztec pyramid temple, that occupied the site of the cathedral. "All through the valley the ground is full of Aztec relics," said Eliot.

In the Zócolo, or central garden of the plaza, a fine military band was playing, as is the custom on every afternoon, and they stopped a while to listen. "Somehow the Zócolo has a changed look - Why, they have cut down the great encalyptus trees !" exclaimed Eliot.
"Yes, they said the trees took all the mutriment out of the soil so that nothing else would grow."
"It is too bad! Why, when Mr. Charles A. Dana, who is one of the best students of trees in America, was here in 1884, he would not believe, at first, that they were only sixteen years old. They were nearly as high as the cathedral towers, and enormously thick; something over three feet, I should say."
"The wood seemed nearly as hard as boxwood," said Mr. Jersey. "Those in the Plaza de San Fernando are almost as large, now."
"Here is a proof, Harry, that the Mexicans are progressive and
are quick to take up new ideas," said Eliot. "When Maximilian became emperor of Mexico this Plaza de Armas was an empty expanse of stone pavement, and it was the same with the plazas in every town throughout the country. The Empress Carlota thought it would be a pleasant feature to convert the centre of this plaza into a garden, and so this Zócolo was created. The Mexicans are so fond of flowers, trees, and such things that the idea became very popular, and the example here set found imitation everywhere. So now it is very rarely that a city, large or small, can be found anywhere in the country, whose central plaza is not occupied by a beautiful garden, carefully tended and full of flowers. The people take great pride in giving their cities an attractive appearance. But it seems remarkable in a country where until within a very few years the cities have been isolated, with communication difficult and infrequent, that such an idea should have spread so rapidly. You will find very few cities in our own country that take any pains in this respect. Even some of the largest cities, places of over one hundred thousand inhabitants, have not so much as a square foot of greensward in any public place."

They strolled through several of the interior courts of the palace, as the great building on the eastern side of the plaza, occupied by the various departments of the national government, is called, and gained some idea of its enormous expanse, for it is said to cover more ground than any other building in America. They looked through the lofty interior of the cathedral, with its elaborate altars and costly decorations, and then they went northward a short distance through an ancient-looking, busy street to the Plaza de Santo Domingo, where they saw the old building, now the National School
of Medicine, that formerly was the Inquisition, and before which, during the occupation of Mexico under the Empire, the French used to stand their prisoners and shoot them - condemned to death on the slightest pretexts and usually on no proof whatever. The sole motive of the cruel Marshal Bazaine in ordering these butcheries of many hundreds of innocent Mexicans was that of making the population orderly through fear.
"How the old life and the modern are brought together here in this city!" said Mr. Brinkley, as the party stood on the corridor balcony that evening, watching the dusk darken into night under the noble fresnos of the garden, while the incandescent electric lights glittered all around and cast a mellow radiance over the lively coming and going, and the animated groups of the hotel sitting and standing around in the open air. "Here we have an old convent transformed and made comfortable by the magic of nineteenth century invention. The life of the great toiling mass is that of the multitude in feudal times, while that of the upper classes is as advanced, in all externals, as will be found anywhere. It is the poverty, the degradation of the common people, that holds Mexico back; that makes the civilized minority, as in Russia, depend upon a despotism for the maintainence of its power and privileges. The thing is, to make the intellectual and material advantages of the few the possession of the many. Universal education will solve the question here and elsewhere, and free the country from the curse of inequality of opportunity that is as dangerous to the upper classes as it is oppressive to the lower."

## CHAPTER XIII.

RIDING HORSEBACK IN THE SUBURBS OF MEXICO.
 horseback, and it was with
 however, for he was an enthusiastic wheelman and his bicycle had carried him for hundreds of miles over the smooth ways of the parks and the fine suburban roads around Boston. But he found the keen enjoyment of anticipation in looking forward to a new and untried pleasure. "You will find no trouble," Eliot assured him. "A good Mexican saddle is as easy as an armchair."

They had both bought the regulation Mexican sombreros the day before, and Eliot had brought his old Mexican riding-suit back with him. Seeing this, Harry declared that he was going to order a charro suit at once; it would be fun to dress up in it at home. They found the horses in waiting for them in front of the hotel, in charge of a man from the stable. Mabel and Florence made their appearance on the balcony, in their riding-habits, and they spied Mr.
and Mrs. Jersey coming down the street with Nacho Andrade and another young man with him.
"How delightfully picturesque these young Mexicans look on horseback," said Mabel. "They sit like statues, and their stirrups are so placed that there is almost a perpendicular line from their shoulders to their feet."
"I wonder who that is with our Mexican friend," said Florence, as they drew near. "He must be an American boy, I should say, in spite of his Mexican costume."

As everything was all ready, the young ladies went down and found Don Ignacio presenting his brother Pablo to Harry. "Your brother!" exclaimed Mabel, "how can that be possible, Señor Audrade? Surely he must be an American !"
"Indeed, Miss Sampson, he is really my brother," said the darkeyed young fellow with a sincere smile. "But he is a Goth and I am an Iberian, you see, for in our Spanish blood many races are joined."

Pablo Andrade was a slender youth of about Harry's height, with frank eyes of clear blue, light brown hair, and a fair face with fresh rosy cheeks. No one of the party, not even the blonde Eliot, was so Northern-looking in feature. In view of this, it seemed odd to hear the broken English, and note the gentle, gracious shyness with which he met Harry's hearty American informality of hoyish friendliness. But their mutual glances expressed a genuine liking, an! the two boys were evidently destined to become good friends.
"We are so accustomed to think of the Spanish as a Latin people that we forget the strong Northern element in their composition," said Mabel.
"Yes, the Visigoths were as Northern in character as the Saxons or Skandinavians, and you can find their type, just as distinct as in Pablo here, all through Mexico as well as Spain."
"Do you know," said Mr. Jersey, " that the word bigot comes from Spain, and was derived from Visigoth? For the Visigothic portion of Spain had the reputation of having that hard, stern religious temperament that is expressed in the word. The Visigoths left a deep impression on the race, language, and institutions of the land they conquered, but with whose people they became assimilated."
"And the Spanish word for moustache, bigote, also came from Visigoth," said Eliot, "showing that the wearing of the moustache was a Gothic fashion."

By this time they were all mounted and they started in a lively cavalcade. "How small these Mexican horses are!" remarked Florence.
"Yes, and when you get back across the border you will say, "What great lanky things these American horses are,'" said Eliot. "These Mexican horses belong to the most beautiful and intelligent breed in the world, - the Arabian, brought to Spain by the Moors, and to Mexico by the Spanish conquerors."
"I notice one peculiarity here, already," said Harry, " the horses in Mexico all have tails!"

Pablo, who was riding by Harry's side, looked at him questioningly, as if doubtful that he had heard aright, and asked if it could be that the horses in the United States of the North were of a tailless kind.
"Artificially so !" said Eliot, langhing. "There is a species of American called the Anglomaniac, and they have set the fashion of
docking their horses tails because the English formed the habit in hunting across the country, in order to prevent their horse's tails getting caught in the hedges when they leaped them."
"There are a few foreign dudes here who do it, but there is no danger of the style becoming popular, for a horse so treated is unmarketable here ; no Mexican would buy such a guy."
"Happily it has also become unfashionable with us, now," said Florence. "The leading ladies in the city - those most powerful in setting a social example, - have declared against it on account of the cruelty, and have agreed to own nothing but horses with long tails."
"And so the bob-tailed nags are descending the social ladder, and have already reached the hack-horse stage," said Eliot.
"Good! good!" cried Mrs. Jersey. "A horse looks mutilated and ungainly deprived of his tail. They might as well clip his ears."
"If it were the fashion in England for horses to go lame in one leg," said her husband, "thousands of people would think it the most graceful gait possible, and spavined beasts would be at a premium!"

All the horses of the party had the characteristic of long full tails and manes. Pablo rode a dashing pony, black as night, and Harry's steed in particular was the object of many admiring glances. Mr. Jersey, who had selected the horses for the party, said that "Bayito," as Harry's pony was called, was one of the best saddlehorses in Mexico. Harry took him to his heart at once, and declared that he would ride no other horse while in the city. He quickly felt himself at home in the saddle as if he had been a horse-
man all his life. "Bayito" was a beautifully shaped little horse of the "buckskin" color that denotes a sturdy strength and power of endurance. His soft, expressive eyes were both intelligent and kindly, and every now and then he would give a vivacious little toss to his handsome head. He had a full, long-flowing mane and tail and forelock, of a rich, ruddy brown that in the sunlight was alive with golden glintings.

They went at a quick walk through
 the streets out to the Paseo de la Reforma, the beautiful broad pleasure-way, leading straight out to the castle of Chapultepec, which they had noticed with its bordering line of shade-trees on the way to the hotel the morning before, running out from the great equestrian statue. That statue, which in Mexico is commonly called " El caballito" (the little horse), represents King Charles IV. of Spain, and bears an inscription which is the Spanisk equivalent of "Preserved as a work of Art." This is a delicate way of conveying the inference that it was not out of respect to the monarch that the statue was permitted to exist after Mexico rid herself of the Spanish yoke. It was the work of the great Spanish sculptor and architect, Tolsa, who came to Mexico in the last century as director of the San Carlos Academy of Fine Arts. This statue, which is cast in one piece, is the first equestrian monument made in the New world, and is still called the best.

They stopped at a restaurant on the Paseo and dismounted to take a cup of coffee and a roll, at little tables in front, overlooking the broad sidewalk, while a man looked after their horses. The early morning air was cold, and the coffee warmed them up pleasantly. They set out at a quicker pace towards Chapultepec. "Bayito" showed a disposition to go still faster, and to keep him along with the others Harry was obliged to hold him reined in pretty tightly. "Corrémonos un poquito?" suggested Pablo, glancing inquiringly at Harry, who correctly inferred that the words must mean " Shall we run a bit?" for, at a slight tap from the whip, the Mexican boy's pony shot rapidly forward. "Bayito" needed no urging to follow suit, for in a second he was off like a flash, running at full speed over the level way. It made Harry catch his breath at first, while his heart seemed to leap into his throat. But the swift motion was fascinating ; he began to feel as if he himself were a part of the horse, as the long, quick bounds carried him rapidly ahead. Instinctively, with a feeling of exultation and a sense of mastery, he thought of himself at the helm of the Brynhilda, with the main sheet in his hand just as he was now holding the reins, ploughing swiftly over the waves with the wind free on the quarter and all sail set. The two horses kept well abreast, and every now and then Pablo looked across to Harry with sparkling eyes and a friendly smile. They were not far from Chapultepec when Pablo reined in his pony. "Bayito," with evident reluctance, was induced to slacken his pace in the same degree. "Como le gusta Usted? How you like, Meester Marsden, the fast going in the horse? " said Pablo. The horses were drawing long, rapid breaths; their necks were wet with sweat, and the two boys were also breathing quickly,
with flushed, excited faces. "First class!" cried Harry. "But suppose you call me Harry! Then I will call you Pablo. We are going to be good friends, I know!" and he extended his hand, which Pablo took heartily.
"Hah-rree - amiguito Enrique! We must then tutear - that ees, speak with 'thou' the one to the other, as say good friends."
"Say thee and thou to each other? How queer that would sound! Only the Quakers do that with us."
"I mean hablando Castellano, — in talking Spanish. It seegnifies friendship that is eentimate."
"Just the same as when we call each other by first names in English ! - I tell you what, Pablo, we'll teach each other. You say things to me in Spanish and I'll repeat them and tell you the English of it, and I'll talk English to you and you'll tell me the Spanish of it."

The proposition was joyfully ratified and the first Spanish-English lesson was proceeding with much vivacity, when the rest of the party came galloping up behind. "Bravo muchachos!" cried Eliot. " Good boys! You are turning out a 'buén ginete,' - a good rider — already ; Harry."
"That Bayito," said Mr. Jersey, " is a regular goer from Goville! He will not only run like the wind, but he wants to keep it up all day. Then he is gentle as a lamb besides, and every gait he strikes is wonderfully easy - it is like riding on velvet."

They passed through the gate of the castle grounds and were soon riding beneath the grand old cypresses of the famous grove of Chapultepec. Many of the great trees, with trunks of enormons circumference, had been standing since the days of Monteruma. It
being January, their branches were leafless, but the long pendants of gray moss hung thickly like venerable banners. As they rode along beneath the sylvan arches it seemed as if they were in some solemn temple of nature, and for a while there was in the company an instinctive silence that was only broken by a clatter of hoofs. On one side the precipitous face of the hill rose abruptly, clothed with a tangle of wild shrubbery, and on the other, here and there a straight narrow aisle led off to the westward towards the Molino del Rey, making an impressive vista between the warm brown trunks of the ahuahuetes, as they call the taxus, or American cypress, in Mexico. They passed entirely around the hill and paused a moment to admire the greatest tree of all, known as the Montezuma cypress. In the midst of the garden there rose the simple, tasteful monument to the memory of the brave cadets of the military school who fell in defence of the castle against the Americans in the war with our country. Then they ascended the hill by the gradual incline of the winding road. At the gate there stood as sentry one of the cadets of the military school, the West Point of Mexico, that occupies all the summit in the rear of the castle, which is now the official residence of the President of the Republic. Catching sight of a young lieutenant inside, Eliot, recognizing an old friend, exclaimed: "Ah, there is Teniente Brito!" He called to him, and received a hearty welcome from the officer, who was one of the instructors of the school. He cordially invited them to pass inside. From the parapet before the castle they faced one of the most beautiful and celebrated landscapes in the world. At their feet lay the rich, cultivated plain of the valley, diversified with many trees. In its midst spread the great city, with the broad lake Texcoco glittering beyond, and all
around ran the great girdle of mountains, culminating in the two lofty and snow-mantled volcanoes. The sun had now warmed the morning air, and everything was glorified in the clear, golden light. For a long time they stood in speechless admiration, noting detail after detail of a picture that seemed to contain no blemish upon its wonderful beauty.
"Do you never tire of this scene? Does it not grow commonplace when you have it before you day after day?" said Mabel to the young lieutenant at her side.
"Never! It grows more glorious the more I know it, and it has been before my eyes ever since $I$ entered as cadet, ten years ago. And I am constantly finding new beauty in the scene; effects of light and shade, and of atmosphere, that I never before noticed."
"Much as I have rambled over this valley, there are many interesting spots I do not yet know," said Eliot. "Charley Holyoke, when he came North, told me about a most romantic place that he discovered and used to ride out to, off back of Chapultepec somewhere. A paper mill was there. I wonder if it is far from here? Do you know it?"
"The Molino de Santa Teresa, you mean," said Mr. Jersey. "Charley and I were riding out together when he discovered it. It is several miles out from here, back in the foot-hills. It is a place well worth seeing. Shall we ride out there?"
"By all means!" cried his wife, enthusiastically. "That is, if the others - ?"

They were all eager for going. "Then we'll make a forenoon of it," said Mr. Jersey. "Business can wait on a day like this."

Bidding adieu to Lieutenant Brito, who promised to show them
over the castle and military school if they would come out some morning, they set out down the hill and off to the westward, through the Bosque, as the grove is called. The ground gradually and evenly rose towards the foot-hills of the high western range, the Sierra de la Cruz, the Mountains of the Cross. They passed by handsome country villas, and along a road which three centuries of use by the feet of myriads of horses, donkeys and mules, and the torrential summer rains, had sunk several feet below the surrounding surface. For a considerable distance they skirted the great cemetery of Dolores, the largest around the city. Fields of the gigantic maguey, with the thick, sharp-pointed leaves sometimes eight or ten feet from the ground, bordered the road. This variety of the agave is cultivated all through this part of Mexico for the sake of the popular beverage that is fermented from its milky-looking sap.
"Wait a moment and I will show you how the peones mend therr clothes on the spot, when they happen to tear them," said Ignacio. He took his knife and cut around the thorn-like end of one of these leaves, about an inch from the point. Giving a dexterous motion, it was detached, and something like two yards of coarse fibre was pulled out of the leaf in six or eight parallel filaments. "Here you have a needle and thread all in one, and ready for instant use," he said.
"That fibre is strong and will hold, though it wouldn't make a very pretty darn!" said Eliot.

Mounting continually higher and higher on the valley slope, the view behind them grew grander and more sweeping, as they turned to admire its varied panorama. The ground sloped more irregularly, and a broad ravine-like valley began to furrow it. They rode along
beside this, and it grew narrower, with more precipitous sides, as they progressed. At its end stood a cluster of massive buildings amidst a large grove.
"There is the mill," said Mr. Jersey. "And do you see those holes in the steep sides of the valley thickly dotted all around? That is where the operatives live, in caverns excavated in the soft rock. Perhaps such dwellings are warm and dry, but it seems hardly the thing for human beings to live like animals in their burrows. And they go to work at six o'clock in the morning, and leave off at nine at night, earning but three reales, or thirty-seven and one-half cents, a day. It is the same in the factories all over Mexico."
"It is a shame that human beings anywhere should live to work, instead of working to live," said Eliot. "For that is what it amounts to ; outside of their work they have no time left except for sleep, and to devour some coarse food. After childhood is over, with its frolics, what is left of life, except toil?"
"And here there is not much left even of childhood, for the little ones go into the mills almost as soon as they can talk plain," said Mr. Jersey. "The industrial conditions of Mexico are such that these things have to be, for the present. Some day they will improve, but now the poor people are so igmorant that they do not know enough to be unhappy in their lot!"

They rode past the upper side of the mill, and then down a steep, narrow path, bordered by a thick wall, on the precipitous side of the valley. They dismounted in a garden-like court in front of the mill, and left their horses in care of three bright-eyed boys. Thepicturesque buildings of the mill rose terrace-like against the slope.

The place was formerly the convent of Santa Teresa, and several of the buildings were portions of the old convent. Eliot pointed out that they were fortified for a siege against robbers, like the mines they saw at Zacatecas.

All around them they heard the refreshing melody of the babbling rush of waters. Down beside the mill there poured a clear stream in a series of cascades from a tunnel-like arch in the face of one of the buildings high up the slope, the bright water sliding swiftly down from fall to fall, enclosed in smoothly cemented masonry. Steps rose irregularly beside the stream, and the way, together with the water, was bordered with a profusion of flowers and shrubbery. These stairs led them to a broad level space overlooking the court-yard of the mill and the valley below. It was a sort of plaza where carriages could stand, and was bordered by perpendicular, tree-crowned cliffs, in the face of which was hewn a chapel for the mill, with a commonplace ugly front. A pleasant woodland path rambled along the steep slope of the valley, and around through the grove to the top of the cliff. There were flowers of many kinds beside the path, and among them an abundance of violets, filling the pure air with their richly delicate breath.
"Such are the romantic sites and Eden-like surroundings of our Mexican factories," said Mr. Jersey, as he led the way around through these charming scenes. "What a pity the toilers within their walls cannot enjoy a life that matches the beanty of the world about them!"

As they rode cityward, their faces flushed and happy with exercise, Mabel said: "The pleasure of this ride alone would repay for the trouble of coming on this long journey to Mexico."

They returned through the beautiful suburban city of Tacubaya, where crooked, lane-like ways passed between the high walls of extensive villa grounds. The walls, often venerable-looking and fort-ress-like, with massive buttresses, were crested with tangles of trailing growth, starry with flowers.

When almost back in the City of Mexico, as they neared the end of the Paseo, Harry saw a great circular wooden structure a little to the southward of the circle where stands the imposing Columbus monument. A similar structure stood a little farther away. "La Plaza de toros de Colon," said Pablo ; " the other ees the one of Bucareli."
"The bull-rings; the places where they have the bull-fights," explained Mr. Jersey, who was riding near by.
"The sport was forbidden within the Federal District when I was here before," said Eliot.
"And when the authorities permitted it again, shortly after you left, they had a regular bull-fighting boom, and at one time there were no less than seven rings in the city. But now happily it appears to be on the wane, and there is seldom more than one fight on a Sunday afternoon. The best people are opposed to it, but it is such a long-established amusement among Spanish-speaking peoples that it is difficult to abolish it. How would you like to see a bullfight, Harry?"
" I couldn't be hired to," replied the boy, firmly.
"I saw one, and never care to see another !" said Eliot. "It is. exciting, but cruel."
" Most tourists who come here want to see one, out of curiosity," said Mr. Jersey. "Although they take place on Sunday, many of our American visitors who strictly observe the day at home act on
the idea of doing in Rome as the Romans do. Their scruples 'don't count' in a foreign land. I can tell you a good thing on one of our countrymen. Last year there was an excursion party here from Illinois, and it included a number of people from one of the smaller cities. Among them was an Orthodox Deacon who slyly went to take in the bull-fight one Sunday afternoon. On his return, he gave to the Sunday-school of his church a lecture about his trip to Mexico, illustrating with a profusion of stereopticon views. Everything went smoothly until he prefaced a certain lantern-slide on his list with the words: ' Next, my dear children, we shall behold a picture, about the original of which I can of course only tell you by hearsay, since it represents the cruel national amusement of the Mexican people, which, moreover, takes place on the afternoon of the Sabbath day. I could not with my presence sanction an occasion so wicked, but since a view of a bull-fight chances to be included in this collection which I have secured for your delectation, I will exhibit it that I may the more strongly impress upon you the wrong-doing of habit. You will see -' He had proceeded thus far when, to the astonishment of the audience as well as to his own unutterable consternation, there appeared upon the screen a view of one of the most exciting moments of the sport, in the foreground of which there was to be seen an unmistakable portrait of the Deacon himself, the most intense interest in the proceedings manifest in his familiar features. It seems that there was in the party a mischievous young man who did not like the Deacon. Catching wind of the Deacon's purpose to go to the fight he contrived to secure a seat in his neighborhood, and, taking advantage of a favorable moment, he made a successful snapshot with the instantaneous camera that he had with him. Making
a good lantern-slide from his negative, he contrived to substitute it, just before the lecture, for the bull-fight scene which it was proposed to exhibit!"
"There is another place that I have always intended going to, but have only seen from a distance," said Eliot, as their friends took leave of them at the hotel. "That is, the Peñon."
"Neither have we," said Mr. Jersey. "Suppose we take our next ride out there?"
"All right. How will day after to-morrow do? Harry here, will be suffering from the effects of his maiden ride to-morrow, I suppose, and will not feel like going again so soon."

The trip was agreed upon, though Harry protested that he felt all right and could go the next morning as well as not ; after his long bicycle experiences he would feel no effects from such a gentle-gaited steed as Bayito. After all, he was, however, pretty stiff in the legs the next day, but he felt in fine condition when the members of the same party appeared for the Peñon ride early the second morning.

They started in an easterly direction, going past the Palace and through a quaint old part of the city, where there was a sluggish canal, most picturesque in its surroundings, but most abominable to the nostrils. "It is all on account of the bad drainage of the city, which is built so nearly on a level with the lake that there is hardly any fall in the sewers," said Ignacio. "But now they are spending millions in carrying out the much needed new drainage-system that will convert Mexico from one of the unhealthiest, to one of the healthiest cities in the world. They are making a tunnel that will drain Lake Texcoco out of the valley."

They passed out of the city limits at the Gate of San Lázaro, the Garita de San Lázaro, as it is called. The literal meaning of garita is " sentry-box." There they saw officials carefully inspecting the loaded teams that came in from the country. At every highway leading out of town there is a gate with an office of the city customs-service, and there a tax is collected on nearly all articles brought into town - including provisions, vegetables, fruit, fuel, etc. It is the same custom that prevails in Paris, Vienna, and many other European cities, and known as the octroi in France.

They soon saw a broad plain stretching before them, and crossing a canal that smelt still worse than the other, they entered upon the smooth level. Something like two miles away the great rocky mass of the famous Peñon rose out of the plain like an island at sea, with the broad lake shining like a band of silver just beyond. The plain was like a floor, and was covered with brown grass closely cropped by cattle. "We can let our horses out here for a good gallop," said Ignacio, who knew the way. "There are no stones in the ground, nor any obstructions between here and the Peñon."

What a wild, exciting scamper they had! Bayito was off like a shot, and Harry felt his veins thrill with a keen exultation as the beautiful horse bore him lightly, swiftly on, seeming almost to fly as his feet skimmed the ground with a quick touch and go. Harry kept him well reined in at first, so as to keep beside Pablo, whose black pony, sturdy and spirited as it was, was no match for Bayito. At last a desire to see how fast he could go impelled him to give his horse free rein, and Bayito dashed ahead like the wind. As they neared the Peñon Harry slackened his pace to let Pablo catch up. They found themselves far ahead of the rest of the company,
so they slowed down to a walk - something that Bayito was still reluctant to do.

There was a large building at the foot of the hill, and here the party stopped. "We will take a look at the hot baths for a moment," said Ignacio. The building was formerly a monastery, and was now being reconstructed into a hotel, with a tramway line from the city to give access to the place as a health-resort. The baths were freshly fitted up in luxurious style. The halls and chambers were richly frescoed in designs based upon Aztec motives of decoration. In each bath-room was a large tank sunken below the floor, and in one of these the water was running, almost boiling hot, and filling the room with steam. "If any of us have rheumatism, this is the place for a course of bathing, they say," remarked Ignacio.
"No thank you!" said Eliot. "That is not the kind of bathing we like, is it, Harry? But what a hot country Mexico must be underground! Nearly every city I know has hot or warm springs near by."

At the foot of the precipitous slope they found a squad of soldiers quartered in a long, low building. Leaving their horses here, they induced one of the soldiers to guide them by the easiest route to the top of the hill. Here there was a view of marvelous beauty. They seemed to be in the centre of the valley, with an unbroken range of vision all around. The city spread away close by. The lower slopes of the mountains to the southward were veiled with a delicate dust-haze drifted against them by the breeze, and their heights were clear and luminous in the early sumshine. The great shallow lake spread away from the foot of the hill, and from its shore
there came a salty sea-like smell that seemed very familiar and welcome to Harry's nostrils. "I had no idea I should get a whiff like that in the heart of Mexico!" he exclaimed.

The lake was like a mirror, with here and there a "cat's-paw" ruffing its glassy surface. The boats of fishermen, seining for the pescado blanco, or little "white fish" so abundant in the markets of the capital, dotted the water. On its farther shore the dark mountain wall seemed to rise directly from the water, that reflected its long reach. White-walled towns, among them historic Texcoco, nestled apparently at the very edge of the lake. Beyond the dark range the two snowy volcanoes rose through the calm air in serene purity.
"It is a scene for a poet," exclaimed Mrs. Jersey. "How glad I am we have found out this place! We shall ride out here often now."
"Probably not one tourist in a thousand knows anything about the Peñon," said Eliot. "And it is one of the points best worth visiting around here. But I could find hardly anything about it in the guide-books."
"Lake Texcoco is really wonderfully beautiful," said Mabel. "And they are going to drain it away, you say? What a pity!"
"If your home were in our capital you would not think so," replied Ignacio. "The lake is fair to see, but when green and fertile fields take the place of that glistening water, thousands of our people will live where thousands now die - poisoned by the foul breath of the stagnant sewage."
"The lake has been growing shallower and shallower ever since the Conquest," said Eliot. "Don Francisco de Garay, the great

Mexican engineer, told me that now it sometimes was dried up entirely when a steady wind drew across it for a number of days in succession, the dry, rapidly moving air sucking up the moisture like a sponge that is passed over a wet surface. The lake is but a few feet deep now. In the time of the Aztecs it was very deep, and when the Spaniards launched their ships upon it to attack Montezuma in his island capital, this Peñon was an island. You remember we were reading in Prescott, the other evening on the car, how the Aztecs showered their arrows upon the fleet of Córtes as it sailed past this place. The lake has shoaled because some of its tributaries now flow into it no longer. The Cuautitlan river is carried out of the valley through the great tajo, or drainage cut, of Nochistongo, made by the Spaniards in the early days. We entered the valley through the cut before daylight. Enriquez, the great engineer of that day, proposed to drain the lake entirely away on a plan similar to that now being carried out. But the authorities thought it impracticable, and substituted a tunnel at Nochistongo, which, after a disastrous flood from its caving in, was converted into the open cut - one of the greatest examples of excavation known. Other streams are kept out of the lake by the use of their waters for irrigation, and still another cause of the shoaling is the sediment brought down by the streams."

Their guide led the party down the hill on the side towards the lake, but Eliot, Pablo and Harry lingered a few minutes to look around at various points. They thought they would descend by a shorter, though steeper way. Suddenly there came a sharp cry from Pablo, followed by a warning: "Cuidado con las espinas!" (Look out for the the thorns!) Almost simultaneously Harry yelled "Ow!

Ow !" Pablo pointed ruefully to a lot of dry little ball-like fragments of cactus scattered everywhere over the ground, bristling with spines. The two boys had unwittingly stepped on them, and the needle-like points had penetrated the leather of their shoes and fastened themselves in their feet. "I thought a snake had bitten me!" said Harry.
"Carramba! Como pican!" (Gracious! How they hurt!) cried Pablo, limping and half-laughing at the same time.
"Those chollas (pronounced choyas) are the porcupines of the vegetable kingdom," said Eliot. "Experience with them is enough to make anybody believe in the total depravity of inanimate things. It is said that they will jump at you of their own accord as you pass by, and I am almost ready to believe it! I remember that the first ones I saw I felt a curiosity to examine. I had been warned of their danger, so I gingerly took it by one of the spines and lifted it to look at it, when the infernal thing seemed to give a spring and fastened something like a dozen of its sharp claws in the back of my hand! Now you boys had better take off your shoes and stockings and let me help you pull the things out of your feet. It will hurt, for you will find your shoes almost clinched to your feet. Be careful now, before you sit down, or your trousers will be spiked on to your bodies, and you will not find it very comfortable riding back! It is a peculiarity of cactus-spines that they are hooked at the end, like porcupine quills, and it is easier for them to go in than to come out."

The spines were extricated at last, thanks to Eliot's offices as surgeon, and by the exercise of extreme caution they avoided further encounter with the chollas. At the foot of the hill they found their
companions looking at some old relief-carving on the side of the rock. They were made by the Aztecs shortly after the Conquest, and represented gigantic heads of horses, with the elaborate harness of the olden days. Mr. Jersey suggested that they were possibly made for sacred purposes, since the Aztecs regarded the horses brought by the Conquerors with great veneration, and as supernatural beings. "On the other side of the hill there was once a colossal relief," he said. "It is spoken of by Humboldt, and various Mexican gentlemen have told me that they have seen it themselves. But it has now been destroyed by the quarrying of the rock."


## CHAPTER XIV.

FROM HARRY MARSDEN IN MEXICO TO DAN MATTHEWS IN BOSTON.

Haciende de San Andres, Estado de Morelos, Mexico, Feb. 15, 1890.

Dear Dan:-

What a fine time we are having! I meant to write several days ago, but there has been lots to do. We had a "close call" coming down here. But I won't tell you about it till I get to it.

When I wrote last we had taken that second horseback ride. Since then we have had a good many more, all through the suburbs - out to San Angel, out to the old empty convent of San Joaquin near Tacuba, out to Churubusco where the battle with our troops was that the history tells about, out to Coyoacan where there is a beautiful old deserted convent with a ruined tower that I photographed and here inclose a blue print of it with some other snaps of mine taken all around where we've been out to Mixcoac, out to Tlalpam, etc. It was fine everywhere, - only awfully dusty on the roads. But that's nothing. At San Angel, Don Manuel Andrade, who is father of Pablo and Nacho, has a beautiful great house where he lives in the summer, and in behind it there is a great garden like a park; just as fine as it can be, with shady paths running all around under the trees, and lots of roses and other flowers, and a big stone tank to swim in with water running in out of a lion's head in a high stone wall, with maiden's-hair ferns growing
in the chinks. The water runs out in a stream all over the garden, to irrigate it. The Andrades have a stunning house in the city, and we've been there several times. It has two pátios - regular
 outdoor halls with fountains in the centre, and arched galleries of carved stone all around, full of flowers. Folks don't put flower-pots in their windows here; they keep them in the pátio summer and winter. The windows open like doors and always have balconies where the girls like to stand and look down into the street. When a fellow gets gone on a girl he "plays the bear" juega el oso - does the bear act, we would call it. He just walks back and forth before the house an hour at a time and keeps looking towards her balcony. If she takes any notice of him he's happy, and if she doesn't he knows it's no use.

We went to the Andrade's to dinner and it was just fine. They had a lot of Mexican dishes on purpose for us, and I liked most of them, particularly the soup, called Mole verde (it sounds almost like Molly Verdy) which is made of green chiles with the sting taken out of them, and is thick and green in color. Then they had Mole de Guacolote, made of turkey, sort of stewed, with red chile. They eat lots of chile in this country, but in the best families they cook Mexican things real nice, and not peppery enough to bite hard. When we went out to Guadalupe they were cooking all sorts of messes in the plaza, and I thought I would eat an enchilada, for it looked nice
and smelt so, too. But one mouthful nearly took my head off, it was so red-hot with chile, and I gave it to a hungry-eyed dog that asked for.it with a most beseeching look. He swallowed it without a wink and asked for some more, although I thought it would make him paw his nose and wail loud wails like a dog in a restaurant one day when Eliot dropped a drop of ammonia under his nose for making himself too much at home around our table. The same dogs go to the same restaurants day after day, like regular boarders.

The Andrades had tortillas, which are the bread of the common people, made of corn soaked in lye and ground fine while soft. They have a hulled-corn taste, and are thin as wafers, like griddlecakes bigger than dinner plates, and sort of flappy. They are fine when spread with mashed aguacate and then rolled up. The regular thing just before desert anywhere in Mexico is frijoles, (pronounced free-hó-less) or beans, stewed, and better than baked beans warmed over. Mexico beats even Boston on beans, for here they eat them every day. For desert they had tamales dulces, made of white corn meal done up in corn husks, sweetened a little, with some chopped almonds and raisins inside, and steamed, making a real nice little pudding in each wrapper, just big enough for one person.

We went there to a tertulia one night - a sort of time when friends drop in for the evening without ceremony, and it was just jolly. Pablo and Nacho have two sisters, and they are pretty, too. The whole family is musical and everybody sings and plays piano, violin, flute, guitar, and other instruments, so there's a regular orchestra of them. Florence brought round her banjo, and she and Eliot sang some darkey songs, which the Andrades liked immensely, although they did not catch on to the funny parts. And the

Andrades sang some Mexican songs that made us wild, they were so pretty. We had dancing and played games, and just to show us one of their customs they played the olla game they have during the Christmas holidays, which they call the posadas, - for on nine successive nights before Christmas it is the custom to celebrate - each evening for one of the posadas, or taverns, at which, according to

the legend, Joseph and Mary sought rest before the Saviour was born in the stable. They hung up an olla, a big earthen pot, made thin and brittle, and filled full of candy, in the pátio corridor. Then they blindfolded one after the other, and the blindfolded one went round beating the air with a long stick, trying to hit the olla (pro-
nounced ol-yah). At last it was given a good thwack that broke it and the candy went flying in every direction, so there was a big scramble for it, and the one who hit the olla got a prize.

We went sightseeing round everywhere, to the National Museum and the Art Gallery, and through lots of splendid big churches, and all over the suburbs, and out to Texcoco on the other side of the lake where King Nezahualcoyotl - I'll give you a prize if you'll pronounce that at sight; the coyotl part is the same as our coyotehad a great palace that is now only a big heap of dirt, and a summer palace that is only a heap of stones on a hill near the town. At. Texcoco there are large glass-works, and a beautiful garden around a mill not far away, the Molino de Flores, the Mill of Flowers, (it is a flour mill, too), with a lovely crystal stream with cascades in a wild mountain gorge. Another name that is a sticker for you is Atzcapotzalco, one of the suburbs of Mexico. Eliot said an American friend of his couldn't possibly get his tongue round the word, and always spoke of it as " that name on the street-cars."

One of the churches we went to see is that of San Pablo, which was confiscated by the government under the Reform laws. Lots of the domes and towers all over the city belong to churches and convents that were siezed and are now used for other purposes - stables, theatres, factories, schools, railroad freight-depots, etc. The church of San Pablo is used by Mr. Jersey's firm for a bodega, or storehouse. It is a big place, bigger than Trinity, and it looked queer to see it full of American plows, reapers, threshing-machines, steam boilers and engines, with the altars and sacred inscriptions and frescoes all around. On one of the altars there was a pile of soap boxes, just underneath some carved and painted cherubs, a combination that
made me think of some of the soap advertisements in the back part of the magazines. We also went through an old junk-market, where the girls bought a lot of rubbish and went wild over it.

Villa Guadalupe, about three miles out to the north, is the most famous pilgrimage place in America, and there are sacred shrines and sacred wells, and all sorts of religious things out there, all because in the early days an Indian had a vision of the Virgin Mary there which all the common people believed really happened. But the Church authorities at Rome take no stock in it and will not endorse the legend, so Mr. Bandelier told uncle Lemuel. But the people will have it and so their worship is tolerated, and they flock there
 by thousands from all parts of Mexico. There are lots of interesting things to see out there, and there is a queer garden with walls and rocks all crusted over with mosaic-work made of broken crockery of various colors.

One funny thing here is the " milk wagons," - nothing but burros with a big milk-can held in a kind of sack on either side!

Uncle Lemuel said it wasn't warm enough in the capital for him, and he decided to go down into the hot country, for a stay. The hotels are all crowded down in the tierra caliente resorts now with people getting away from La Grippe in the capital,
and we couldn 't bring the Ariadne down here for the line is narrow guage. Don Manuel Andrade told uncle Lemuel of a friend of his who had a sugar hacienda, or plantation, near Cuautla. Pronounce that Kwoutla. His friend was in Europe, and it could be easily arranged with the $a d-$ ministrador, or manager, to go there and live for a month or so. While the rest of us were sightseeing,
 Eliot and Nacho ran down to look the place over, and they reported enthusiastically about it when they came back. So Uncle Lemuel engaged one of the private cars of the Interoceanic Railway to bring us down. He said that the transfer from the Ariadne to the Delfin was like that from a deep-draught yacht to a light-draught one, for navigation in the shallow waters was represented by a narrow-guage line. We couldn't get a special train, because all the engines were busy in construction work, and so we had to come by the regular, which was a mixed train, and loafed along at the stations to load and unload freight. But it was a mighty interesting trip all the same. Between two places, called Amecameca and Ozumba we went right close to the foot of the big volcanoes, so we could see the cascades running down from the melting snow over the rocks on the rugged slopes of Ixtaccihuatl. It was like the pictures of the Alps. There were pines and cedars all around us, and the houses had roofs just like
those in Switzerland, made of shingles held down with heavy stones.
Then while we were up in the thin mountain air we came to a place where we could see way off through the gaps down into the hot country, sloping down and away and melting into the blue distance towards the Pacific coast. We could see the sugar-cane in great stretches of light green, with brown land all around, and it seemed like lakes. They were at levels half a mile and more below where we were, and an island of dark green trees in the midst of one of these lakes of sugar-cane was pointed out as Cuautla, where we should not arrive for two hours yet.

It took lots of curves to get down so far. The slope was mostly bare open fields, dry and brown, and from the train we could see the track at a good many places far ahead of us, as it went squirming down into the valley, something like a rope that has been thrown down on the ground and left just as it fell. The train continually changed its direction so that we got views on every side from one window, and they were splendid views too, with Popocatepetl growing higher and higher above us as we went lower and lower. In one place the valley was bounded by a line of steep, high cliffs with rugged tops that looked like architecture, and one point looked exactly like a big castle with a square tower, that was way below us when we first saw it, and looming way above us at last. The train, going every which way, seemed as if it was waltzing, and the girls said it almost made them dizzy.

At a station named Nepantla we waited a long time for the up train to come along and pass us. The station building was real interesting and was covered with scalloped red tiles and had a nice Hower-garden. The agent was a pleasant old Spaniard - a

Gachupin, Pablo called him, which is what the Mexicans call the Spaniards - and the conductor was a Gachupin too. The agent had some of the windows full of canaries and other birds, each window making a big cage by closing up with wire netting the space made by the thick adobe walls, giving the birds plenty of room to fly round in. The girls admired his garden and he said he would esteem it a favor if we would go in and look about and pick all the flowers we liked.

The engineer of our train was an American and Eliot and I were talking with him and he was awfully glad to get some home newspapers we had with us, when the other train came along. Hitched on behind all the freight-cars, the last thing in the rear, there was a smashed-up engine that had been ditched the day before on the new part of the line, with cab smashed off, smokestack carried away, and pretty well bunged up where she had rolled over. Our engineer looked at her and said that was no way to carry an engine like that, for she hadn't any tender and so was without a brake, and if the coupling should give way nothing could stop her running back down hill. We waited a few minutes for orders, after that train had gone along up, and we watched it crawl slowly up the grade that went along the steep side of the gorge, until it disappeared around a point. Our whistle had just blown for us to start and we were all on the train - us fellows standing on the rear platform. All of a sudden we heard a noise up the track, and we saw that smashed engine come tearing down the grade like mad, all by herself, for she had broken loose! We rushed inside and told everybody to run for their lives, and everybody got out in a lurry, scared half to death, and put for the station. All the rest of the passengers heard us
yelling and everybody came piling out. Our train was on the main line and I thought it would be stove all to flinders, but the switchman who had thrown back the switch after that train had passed off the siding was still near by and saw the engine coming, and he had presence of mind enough to run and throw off the switch so the runaway might pass to one side. But even then there was danger that it might jump the switch, and I would not have given much for our baggage. But before the engine got so far as a high iron bridge just above the station, it was going so fast that it could not keep the track at a curve and it jumped the rails and dove down the embankment like a shot, pitching heels over head, kicking up the dust in a big cloud, making the stones rattle down after it in a shower, going crash-rickety-bang! and at last bringing up with a tremendous whack on the bare rocks at the bottom of the gorge where the stream tears along in the rainy season. I tell you I shook like the Brynhilda's mainsail coming round in the wind, and Pablo was white as a ghost and he said I was like an espanto, which is the same thing as a ghost. Florence fainted and everybody was fearfully excited, except uncle Lemuel, who took it as cool as a cucumber. We went and looked over the edge at the engine and there wasn't much left after her second wreck, except the boiler, which wasn't broken, although I should think it would have smashed all to bits against that hard rock. Eliot says that a cylinder is one of the strongest possible pieces of construction and very hard to break. But there was nothing to be seen of the eight driving-wheels except some scattered pieces of broken iron.

When we started, the air kept growing warmer and heavier, and at last when we began to run on a straight track for the first time
since the summit there was tall sugar-cane and green grass and lots of clear running water on both sides of us, and it was like July. That was at Cuautla, and we ran up a " Y " to a station that was made out of an old convent, with domes and towers and a carved stone front, and what was once the chapel was piled full of freight.


RAILWAY STATION AT CUAUTLA.
(Old convent.)
It is quite a city, but you can hardly see anything of it until you get into it, there are so many big trees, and most of the streets, except in the centre where the buildings are solid, are shady lanes with thatched huts, and brooks of water running round nearly every-
where. There are lots of flowers on all sides, and palms, and bananas, and any quantity of fruit-trees of many kinds, with oranges and limes, but no lemons, except sweet lemons that haven't any taste to speak of, but smell fine enough to make up for it. They call limes lemons in Mexico, and lemons limes; that is, limones and limas.

A nice mule-team was waiting from San Andrés, with saddlehorses for several of us. I was glad enough to see Bayito among them, for uncle Lemuel had had him engaged and sent on ahead, so as to surprise me. Pablo's and Nacho's horses were there too. It was three o'clock when we left Cuautla,
 and sunset when we reached San Andrés, which is lower down the valley, and still more tropical. It was fine coming horseback, with lots of strange things to see every minute. But for Uncle Lemuel and Aunt Maddie, in the carriage, the road was pretty rough in many places. The scenery is magnificent here, with the mountains all around in all sorts of shapes, and old "Popo" king of them all in plain sight looming up tremendously high and looking only a few miles away. When we arrived he was lit upwith the afterglow, with his snowy top all rose-color against a sky of deep violet.

Everything is mighty interesting here. It is a great sugar hacienda, and the house is like a palace in size, with big rooms, very plain, but neat as wax. There is a nice piano in the parlor, though,
and the floors are of red brick tile. Nobody cares for inside show here, in a climate like this, where you can sit outdoors in the evening all through the winter. The corridors are the real parlors, and we sit there nearly all the time when we are around the house. There is a big flower-garden, and a great orchard with all sorts of fruit that grow here, and the trees are full of birds with flocks of little green parrots that chatter like fun, noisier than English sparrows, for they seem to be talking to each other. A fine river runs close by and seems just like one of the streams at the White Mountains except for the thicket of bananas along the banks, and there's good fishing in it.

Don Alberto Peralta is the administrador of the place, the general manager, and he's a real Castilian gentleman, - a model of politeness, and he runs the big plantation in a live business way. His family is away, so he has had the house all to himself, and he is glad enough to have our company. He sits at the head of the table, and the meals are just fine. He doesn't know English, and when there's any joking going on among us he wants to know what it is all about, and Eliot and Pablo explain it to him. Sometimes he can't see anything funny in it and looks perplexed, for it is difficult to explain some jokes in another language, you know, but others he sees the point of quick as lightning and then you bet he laughs! Then he tells some Spanish joke that has to be translated to us. We are all learning Spanish pretty well, and I mean to keep it up at the Tech, for it is going to be valuable for an electrical engineer where there is such a field as there is in Spanish-America.

Everything goes like clock-work about the house and place. The servants are all men and boys, and they glide around still as
shadows, dressed in nothing but a loose cotton shirt and drawers, always fresh and white - quite different from in the City of Mexico where they seem to wear the same things until they drop off. Down here in the hot country it is a necessity, almost, for them to bathe every day, and so they get the habit of keeping clean. The sugarmill joins onto the
 wing of the house, making three sides of a large square all together. It is run by power from the river, and is busy as a bee-hive, with the laborers coming and going all the time, bringing in big bundles of cane to be crushed in the trapiche, as they call it, where the juice runs out in a steady stream and a glass full of it tastes kind of nice once in a while. They even refine the sugar here into nice white loaves. The laborers live in a village by themselves just beyond the huerta, or orchard, and they go to church in a chapel joining onto the other side of the house, - a beautiful building big enough for a city church, and it was built over one hundred and fifty years ago.

Pablo and Nacho came with us by special invitation of Uncle Lemuel, and it makes it real jolly that they are here; it helps us along with our Spanish, and they teach us Mexican songs and we all sit and sing in the corridor in the moonlight, and have music of
guitars and banjos beside. Pablo had an attack of the Grippe just before we came down, and his father thought he had better leave school for a while and get the benefit of the change of air. Nacho came down because he thought he might have the Grippe if he staid in the capital. But between us the truth is he has taken a great liking to cousin Mabel, and she seems to like him just as well, for the two are together pretty nearly all the time. Pablo and I are great friends, and we all three shall be, Dan, for I know you can't help liking him when he comes to Boston to enter the Tech next fall. He will come in August with his father, and, the very first thing, we will break him in for the salt water by a cruise on the Brynhilda. He has never seen the ocean yet. You couldn't tell him from an American boy by his looks.

We take long rides all through the country, and see lots of strange things. The people mostly live in thatched huts made of cane or reeds, and the children usually don't wear so much as a single rag. A good many of their parents don't wear much more, and clothing can't be a very heavy item of expense in this part of the world. A considerable part of the day we fellows have no use for it ourselves, for there is a large swimming-tank in the huerto with water running in from the river all the time, and orange-trees shading it at one end, where there is a terrace paved with tiles and a bench of smooth stone for resting. We spend a couple of hours or so there every day.

Once in a while we go fishing in the river, but we haven't done any hunting, for none of us like to "go round killing things." We canght an armadillo one evening though, down near the river, and I am going to try to bring him home for a pet. It's the funniest
looking thing, with a thick shell, like plate-armor, and when we caught him he rolled himself up into a ball, which it would be pretty hard for any other animal to bite through. The girls were scared of it and shrieked when we offered to put him in their laps, but he is perfectly harmless and gentle, for he hasn't any teeth. They say it's first-class eating, and the people here call it a great delicacy. Don Alberto offered to get up an armadillo dinner, but I for one couldn't stomach it, it looks too much like a reptile, although it is really a mammal. I wonder if they serve it roasted in the shell! There is a reptile here that they do eat, and that is an iguana, a great fat kind of lizard. I'd rather eat armadillo than that. Other queer things that they eat around the City of Mexico are mosquitos' eggs, from around the lakes, and maguey worms, great white grublike things that they find in the leaves of the pulque maguey. Both uncle Lemuel and Eliot have eaten them, fried and raw, and they say they are finer than oysters, but you couldn't hire me to touch them.

I thought I'd find Mexico full of snakes, and they say there are some, but I haven't seen one yet, so they can't be very plenty. One thing I'm disappointed in, and that is I hoped to see some wild monkeys, but there are n't any round here and they tell me they are not to be found till much nearer the coast, where there are forests. Tame ones are quite plenty for pets in the City of Mexico, and they are amusing fellows. It is fun to see them on the edge of a balcony where they are chained ; they will give a jump, catching hold with the end of their tails and dangling there. About all the American species have tails of that kind.

There are lots of things I want to tell you about, but I haven't time and must wait till I get home. I am keeping up the log-book
you gave me pretty well and have taken lots of instantaneous photos, so I shall be able to give you a fair idea of the voyage of the Ariadne. We shall stay here till early in March and then return to the capital for a few days, after which we shall travel around through the country.

Write me some more about the Tech and how you are getting along there. When did you go over to the Point last to see the Brynhilda? I'll tell you a grood Mexican name for a yacht: "Malinche," the name of the Aztec woman that Córtes loved. But the trouble with lots of these foreign names for yachts is that people don't pronounce them right. The " Gitana," you know, for example, is a Spanish name, but the $G$ is pronounced like $H$ breathed hard, and the word, which means Gypsey, sounds like this: "He-tah-na."

Remember me to all the fellows.

> Yours as ever,

Harry Marsden.

## CHAPTER XV.

EXTRACTS FROM THE LOG OF THE ARIADNE.
City of Mexico, March 9, 1890.

HERE we are back on the Ariadne, and it seems like home, although we hated to come away from San Andrés, where it seemed like home, too. In the capital a week, now; more sightseeing, rides every morning with the Jerseys and young Andrades, Spanish opera one night, dinners with friends other nights - Jerseys, Andrades, at United States Minister Ryan's to lunch, and two dinners to friends on board the "yacht" - regular round of festivities. To-morrow we " steam out of port" for a trip to Córdova and back, down on the Ferrocarril Mexicano, or Mexican Railway, the first line built in the country, from here to Vera Cruz. Or rather, the Ariadne goes without us as far as Puebla, and Uncle Lemuel has chartered the "light-draught" Delfin again, to take us over on the new narrowguage line, the Interoceanic, so as to get rid of the dust on the Vera Cruz line, that section of it being the dustiest railroad in the world, they say. The Interoceanic used to be called the "Ferrocarril Interoceanico de Acapulco, Morelos, Mexico, Irolo y Vera Cruz," and the initials on the freight-cars were "F. C. I. de A. M. M. I. y V. C.," which beats the " Big Four!" They are building it from ocean to ocean now, and it's going to be a great system.

Puebla, March 10, 1890. - We met the Ariadne here and are
on board again. It was fine scenery coming over, around to the east of Lake Texcoco, through the great pulque region where the big maguey plants cover the plains and hills in regular geometric patterns, being planted so as to form straight lines in several directions. We saw the famous great prehistoric pyramids of Teotihuacan, with other ancient ruins all around, in the midst of a wide valley, and then we crossed over the wild outlying range of the great volcanoes, which were almost constantly in sight, looming up over the pine-covered mountains all around us. A little before reaching Puebla we saw the other famous pyramid, that of Cholula, which has a beautiful chapel on top of it. We ran close to, and the city of Cholula was bristling with churches, just like Puebla, which is only a short distance beyond. This is a beautiful city, large and busy, over one hundred thousand inhabitants, they say, with much manufacturing, and many cotton mills along the river, and of them the first one built in the new world. There is a splendid great cathedral. The streets are so clean you could almost roll over in them without getting dirty, and the style of building is quite peculiar to the place-many of the houses being covered with tiles in all sorts of fancy patterns, and variegated in color. It is a Moorish idea, they say. Here is where they make the colored glazed tiles that are used to cover church domes in many parts of Mexico, and most of the domes here are ornamented that way. The people here are called Poblanos; and the Poblanas, the Puebla women, of the peon class, have a beautiful costume very different from that of other parts of Mexico. They wear their rebozos in a kind of jaunty way, sort of turban-like, and their dresses are richly embroidered. The volcanoes are closer than to the City of

Mexico, and the grand peak of Malinche seems almost within a stone's throw of the city.

City of Mexico, March 13. - Left Puebla morning of 10th in the Ariadne and joined the main line of the Mexican Railway at Apizaco ; curious old-fashioned-looking train - good American locomotive, but no air-brakes nor Miller platforms. At place called Esperanza, which means hope, was a tramway line that went off a long ways into the country, with regular street-cars drawn by mules. Along here we had the first view of Mount Orizaba - a glorious great snow-covered volcano very much like Popocatepetl, only a little more dome-shaped. Here we changed locomotives, and took on a "Fairlie," a double-ender, like two engines joined in one, with the cab in the middle. The "Fairlies" are made expressly for heavy grades like those of this line; the steepest of any railroad in America. At a place called Boca del Monte, seven thousand nine hundred feet above the sea, we went through a tunnel and found ourselves at the very edge of the high table-land. Wonderful views! We were up among the pines and could look right down into gorgeous tropical scenery. We ran along the edge of a precipice with the beautiful valley of Maltrata nearly three thousand feet below, and could look almost straight down into the town of Maltrata, with the station which was ten miles ahead of us by rail! Scenery indescribably grand, with commingling of tropical and temperatezone vegetation, and snowy summit of Orizaba above dark, pine-clad slopes. Vegetation much richer on Gulf slope than on Pacific slope, as in Cuautla valley, because atmosphere is dry there and moist here. Stopped over night at Orizaba ; beautiful tropical city, full of rich vegetation.


Next day went to Córdova and back, through scenery equally rich and beautiful, with sharp curves and steep grades descending from valley to valley, as before. Crossed great bridge of Metlac, on a curve; bridge was washed away last year. Córdova is centre of coffee, sugar, and tobacco region, and is pretty city. Saw many Indians from surrounding villages; costumes differed according to locality they came from. Weather hot and steamy, but very comfortable on board Ariadne. Even more interesting climbing up to table-land than going down ; seems as if I could never get tired of it.

Morelia, Estado de Michoacan, March 20, 1890. - Uncle Lemuel chartered " light-draught yacht" Delfin from Interoceanic again, to come on this trip over Mexican National, narrow-gauge Compañia Camino de Fierro Nacional Mexicana, as they call the company now. Another lot of wonderful scenery on the way here. Climbed straight up out of Valley of Mexico to height of ten thousand feet above sea at Salazar, where it seemed like being in Maine or New Hampshire, and the air was chilly like a late October morning. Crossing Sierra de la Cruz here, came down into broad upland valley of Toluca, with the fourth of the great snow-clad mountains of Mexico rising out of it - the Nevado de Toluca, an extinct volcano with a lake in its crater. They say the lake never freezes, although so high. Stopped over a day at Toluca, capital of State of Mexico. A beautiful clean city, weather always cool, for it is over a thousand feet higher than the City of Mexico. Handsome great market-house, with long vistas between massive stone columns, richly decorated. At Acámbaro, down in a warm country again, took the branch line for Morelia, passing along shores of beautiful

Lake Cuitzeo, a great sheet of water with an archipelago of mountainous islands.

Morelia is the favorite city of Mexico for Uncle Lemuel, as it is for Mr. Church, who first told him about it. Its climate is perfect, neither too warm nor too cold, and the place is full

most beautiful architecture of any in Mexico. Mabel says she is sure that the Alameda must be an enchanted garden, with a magic palace and a sleeping princess hidden in its midst. Morelia is the
capital of the State of Michoacan, and used to be called Valladolid, after the Spanish city, but was changed to Morelia in honor of the patriot priest Morelos, who was born here and who succeeded Hidalgo as the leader of the revolution against Spain. Iturbide, who gained Mexico her independence, and was first dictator and then emperor, was also from this city, and so Morelia is called "the mother of patriots."


A Morelia market-place.

Lake Pátzcuaro, March 27, 1890. - We came by special train six days ago and are stopping at a pleasant hotel close beside the lake, made for a pleasure-resort out of the great house of an hacienda. It is one of the healthiest and most beautiful parts of Mexico. The lake is seven thousand feet above the ser, and the bracing air is
sweet with the smell of the pines on the mountains all around the lake. It is called the most beautiful of the three large sheets of water that give this part of the country the name of "the lake region of Mexico," the other two being Lakes Chapala and Cuitzeo. Chapala is the largest of all, but Pátzucaro is by no meaus small, being as much as twenty miles long by ten wide. It is full of beautiful islands; several of them have fishermen's villages on them, and the queer-shaped nets of fishermen, put up to dry, look something like monstrous butterflies. The water of the lake is clear as crystal ; full of fine fish and covered with wild fowl, some of which have gorgeous plumage. The lake is rising in height, and the captain of the curious little steamer that runs here says that the most troublesome obstacles to navigation near the shore are the submerged stone walls. There is no stream flowing out of the lake, but there is said to be an underground outlet somewhere, and it is believed that the reason why the lake is rising is that the outlet was stopped up by a severe earthquake a few years ago. Others say that there never was any outlet, and the reason the lake is rising is that there happens to be just now a period, or cycle, of greater rainfall than the average. But there is one thing that makes it certain that there must have been a subterranean outlet, and that is, that the water of the lake is fresh; if there were no outlet it would be salt, for that is the case everywhere with such lakes.

The City of Pátzcuaro is only a little ways south of here, back from the lake, among the hills, with queer, narrow streets and very interesting. We are having a fine time here; riding around the country, boating, fishing, swimming, and making excursions on the lake in the steamer, which Uncle Lemnel chartered for ten dollars a
day. It is curious that the Indians do not have sails to their craft; they have big dugouts and use paddles and poles, but never knew anything about sails until one of the American railroad men here, who came from the coast of Maine, rigged up a boat which the Indians thought as wonderful as the steamboat. I have been taking' Pablo out in it considerably, and it made me feel like being at home to have sheet and tiller in my hands once more.

Yesterday we all went on the steamer down the lake to the ancient Indian town of Tzintzuntzan, which, in the early days of the Conquest was one of the chief places in the country. They say the name means " humming-bird," and it is a sort of imitation of the noise made by the bird. There is an old church there, with its yard full of some of the largest and most beautiful old olive trees that Uncle Lemuel ever saw; not surpassed, he says, even in the Holy Land. In the church there are two old pagan relics near the altar; two old stone images of mountain lions, probably used as idols in the ancient days, and they say that the Indians hold them as sacred to-day as any of the Christian emblems in the church, for they are still fully half pagans. In the sacristy there is one of the finest paintings in all America, pronounced a genuine Titian, and representing the "Entombment of the Saviour." It was given to the church by the King of Spain, and although the Indians have no idea of its artistic value they hold it so sacred that no money could induce them to part with it. Mr. Church was the first American to discover it here, and make it known. Charles Dudley Warner was the first to describe it and since then considerable has been written about it by tourists.

City of Mexico, April 7, 1890. - We have been on the go so

much I have only just found time to write up my log. We got back here March 30 and that evening took the night train up the Central in the Ariadne, reaching Irapuato in the morning and from there over the Guadalajara Division all day till 4:45 in the afternoon, passing close by Lake Chapala at Ocatlan, but seeing nothing of it, for it lay out of sight beyond the great stone bridge crossing the head of the Rio Grande, or Rio Santiago, as the Lerma is called after it leaves the lake. It is a large river and we ran beside it a considerable distance. Guadalajara is a fine city, and the second great centre in Mexico - a genuine capi-

tal. We
all liked it immensely, although not so ancient-looking as it really is, they fixed and painted it up so freshly to celebrate the finishing of the railroad something over a year ago. It is the capital of the great State of Jalisco, and is the best run city in Mexico ; very neat, no beggars allowed anywhere, fine schools and other public in-
stitutions, one of the finest and largest theatres in the world, and dogs all licensed just like at home. Only five thousand feet above the sea, and climate fine. But the most wonderful thing around was the great Barranca de Portillo, the deep gorge of the Rio Santiago, only five or six miles out of town. We all went down into it, for Mr. Blake, the pleasant American civil engineer who lives in Guadalajara, told us so much about it that Uncle Lemuel and Aunt Maddie said they were bound to make the trip even if it was a rough one. We went on burro-back, for the road was only a narrow path, steep and winding. It was a sheer descent of at least two thousand feet to the bottom of the barranca, and the climate was hot and intensely tropical and scenery wonderful. It seemed skittish enough at some points going down, and we were nearly two hours from top to bottom, the way was so winding. At the very wildest places
 the guide would tell Eliot about people being waylaid and robbed and murdered there, and when Eliot would translate what he said it would fairly make our hair stand on end, although we knew there could be no danger with a party so large as ours. It seemed strange enough to be down there in such a different climate, beside the large river, and look up at the steep cliffs on the sides, as if we were at the bottom of a big crack in the earth. The narrow strips along the river were carefully cultivated with sugar-cane and all sorts of tropical fruits.

One fine fruit in Guadalajara we had was the " melon zapote,"
which was not a zapote at all, but a variety of the papaya, the kind of palm-tree that I saw first in Cuautla. I did not like the papaya fruit at all; it looks like a melon, but it is filled with small seeds that resemble caviar and taste like nasturtium; the fruit had a butternut flavor. But the melon zapote tastes very much like a real muskmelon, only finer, and without the stringyness of a melon.

Near Guadalajara is where they make the famous pottery, and

natural-looking little statuettes. It is mostly done at San Pedro, a large suburb where the wealthy families go from the city for the summer. Pantalon Panduro, the best modeller of all, makes a faithful likeness after just looking at a person, and brings it round a day or two after.

We also went out to see the great Salto de Juanacatlan, the
grand waterfall in the Rio Santiago known as the "Niagara of Mexico." It is really a splendid sight, and being only about fifteen miles from Guadalajara, that city will probably be furnished with electricity for light and power from there some day, for the falls give at least thirty thousand horse-power now.

Aunt Maddie, who knows all about public charities, says she has never seen such a fine asylum for orphans and poor people anywhere else as the Hospicio in Guadalajara.

On the way back we stopped over at Querétaro, the capital of the State of that name. It is a very interesting place, with a soft, warm climate, and surrounded by a rich and beautiful country. There are lots of fine churches and ancient convents falling to ruin. Everybody was delighted with the chapel of Santa Clara that


Hopkinson Smith described so beautifully in his "White Umbrella in Mexico." That and Jauvier's guide have helped us immensely in enjoying our trip. Querétaro is the place where Emperor Maximilian was besieged by the Republican troops under President Juarez and is particularly interesting on account of its association with that event. We drove out to see the place just outside of the city, at the

Cerro de Campanas, the Hill of Bells, where Maximilian was shot with his two leading generals, Miramon and Mexia. A Mexican officer who was there told Eliot that they were shot at the very instant of sunrise, so that they did not see the sun itself, but fell dead just as its first rays struck the top of the hill on whose side they stood.

They have different ways of carrying water in different Mexican cities. In Querétaro they carry it in jars on rough-looking wheelbarrows; in Acámbaro in two jars hung from a wooden yoke across a man's shoulders, and in the City of Mexico men used to carry it in jars nearly as tall as themselves, slung on their backs, but now they have public hydrants all over the city and so there are no watercarriers.

We went out into the Cañada de Querétrao, which is a narrow valley full of tropical gardens and dense vegetation: going by horse-car, or rather mule-car. The railroad runs through the Cañada on the way to Mexico, so we got another fine sight of the place as we took the day-train back, and it was well worth seeing a second time. A magnificent great aqueduct that supplies the city crosses the valley on tall, slender arches of stone, and the railroad runs diagonally through one of the arches. A little ways beyond are the Hercules Mills, the largest cotton manufactory in Mexico,

with a factory village of several thousand population. The waterpower for the mills comes from a tunnel running into the side of the mountain about a mile, and the water coming out is very warm, so that near the mouth of the tunnel there is a fine bathing-establishment, outside of which there is a large basin among the trees and shrubbery, which is used by the operatives and other poor people. Querétaro is the place where the treaty of peace between Mexico and the United States was signed on May 30, 1848.

## CHAPTER XVI.

## TREASURE-YIELDING GUANAJUATO AND SAINT LOUIS OF THE TREASURE.

" $W^{\text {ELL, I expect that our last trip will be the best of all," said }}$ Mr. Brinkley. "I had no idea when we left Boston that the Tampico line would be finished in time for us to go over it, but luck is with us. Mr. Whorf tells me that the scenery is the finest to be found on any railway line in Mexico, and my friend Mr. Jackson, the general manager of the Mexican Central, who has just returned from the grand celebration in honor of the opening of the line has kindly arranged it so that we can see it in the pleasantest manner possible. We are going to have a locomotive to take our car down and back from San Luis Potosí as a special, so that our movements will not be hampered by the schedule requirements of any regular train, and we can stop along at any place we may choose where there is anything we care to see, and so take as long for our trip as we may wish. That is the way Mr. Whorf's party did, and that appears to be the only satisfactory way to do where there is so much to see. According to what they tell us, it is a pity we cannot give a month to it!"

Mr. Whorf was the assistant general manager of the railway, and he had lately been over the new line in the first train to go through to Tampico, and to pass over the last rail. Mr. Brinkley had been talking with him and some of his party, and their accounts had fired him with enthusiasm to go and do likewise.

On the next evening, April 10, they bade farewell to the Mexican capital where they had passed so many pleasant days. As the party clustered upon the quarter-deck of the Ariadne while the train glided out of the station, they were given God speed by numerous friends whom they had found and made there, not the least among whom were the Jerseys and the Andrades. "Good-bye!" and " Buen viage!" (Good voyage) were shouted for the last time, and they watched the fluttering handkerchiefs snowy in the bright electriclight of the train-house until with heightened speed they vanished in the distance. Ignacio and Pablo Andrade were to make the trip with them to Tampico. The two young Mexicans had been so genuinely kind, and had done so much to give pleasure to his party, that Mr. Brinkley desired to give them some special token of his appreciation, and so he had invited them to join them on this last trip and occupy the spare beds in the Ariadne's parlor. It was ten minutes past eight o'clock when they left, and they at once sat down to supper. It was a particularly merry party that evening at table and afterwards, in the dining-room, where the young people played the piano and sang English and Spanish songs alternately, while at the forward doorway George and Sam and little Pete looked and listened with delighted eyes and ears. "Come boys, we must have a minstrel act as a grand finale!" cried Eliot, and George and Sam were induced to take the banjo and give them a plantation duet, while Pete indulged in a break-down with bone accompaniment, to the huge enjoyment of the Mexican youths, who had never seen anything of the kind before.

They had arranged to give a day to Guanajuato, the great mining city, and capital of the State of the same name, one of the
largest and richest in Mexico. Both Mr. Brinkley and Eliot had been there before, and they agreed that by all means it would not do to miss sight of one of the most picturesque cities in the world. Guanajuato, being off the main line of railway, at the end of a short branch, was visited by comparatively few of the tourists who annually came to Mexico and who did not take the trouble to go out of their way very much.

At Silao the next morning they were transferred to the Guanajuato branch, and were soon climbing up into the rugged mountains to the eastward ; the famous treasure-range that had yielded some of the greatest fortunes in old Spain, as well as proudest titles of " nobility," titles which are usually founded on money, or base services to monarchs, or other ignoble things.

The railway ended at the suburb of Marfil, five kilometers out of Guanajuato, and they there took the tramway for the city. The route was bordered by odd-looking buildings belonging to the "haciendas de beneficio," or reduction works for converting the ore from the mines into silver. There were high-peaked roofs, groups of towers and turrets, and arches and massive walls. The large city of Guanajuato, with its sixty thousand to eighty thousand inhabitants, lives upon the mining industry - the mining and reduction of ore. When the mines are exhausted, as sometime they must be, the massive place, built as if to endure for ages, will be deserted by its population and fall into ruins. But there appear to be no signs of it yet, though mining has been going on for something like three centuries and at least a billion of dollars in silver and gold have been taken out of the surrounding mountains.

The city rose before them, terrace-like and billow-like, with its
masses of buildings losing themselves in the various side valleys extending up into the mountains. They wound through a tortuous, busylooking street with high buildings, and from the end of the tramway were conducted to a snug hotel facing a little triangular plaza with a pretty garden and music pavilion. Here they ordered lunch at noon-time, and proceeded to stroll about the city. "How fascinating!" exclaimed Mabel. "There is a picture at every step! How everything forms itself into a subject for an artist! No wonder Hopkinson Smith was enchanted. The lay of the land; those steep cliffs towering all around us; the buildings climbing onto the slopes; the architecture ; the color; - everything !"
"Do you see how you might step from the flat roofs of some of these houses out into the street behind ?" said Eliot.
"And some of these streets are so narrow you can stand in the middle and touch the house-walls on each side!" exclaimed Harry.
"What delightful pavements!" cried Florence. "These pebbles are nice and smooth to walk over. And to think of street after
street being inlaid in these pretty patterns with lines of light-colored stones! How clean, too! Why, actually, if there isn't a man going around and sweeping up dirt with a dust-pan and brusha wooden dust-pan!"
"It is a pity they don't extend their ideas of cleanliness to their drainage-system," said Eliot. "Whew! Let's get away from the neighborhood of that river - or where there is a river when there is any water!"
"That is the great need of Guanajuato - a good sewerage-system," said Ignacio. "For the lack of it, their death-rate is the highest in Mexico. And they could easily have it, as Mr. Blake has shown them, and make themselves one of the healthiest cities in the republic."

They climbed to the edge of a cliff overlooking the city. A tangle of the thorny growth characteristic of the table-land grew near the edge of the precipice; maguey and prickly-pear, while the tall columns of the organ-cactus formed a sort of frame for the picture before them - the city filling the irregular valley and the mountains rising high on all sides, with large mining-villages on the surrounding hillsides and summits, clustered about the castle-like structures of the works and the stately domes of churches.
"How we can trace the narrow crooked streets ramifying in and out among the buildings like veins," said Mabel.
"There are only three or four streets in the whole city where you can drive a carriage," said her brother.
"What is that building like an amphitheatre down there, that we can almost toss a stone into ?" asked Florence.
"That is the theatre," said Ignacio. "It is a magnificent mass-
ive structure, and is going to cost very much. They have been years building it and have not roofed it in yet, but sometimes they have performances there. Do you see that large gloomy-looking building down there? That is the Castillo de Granaditos, where the heads of the four patriots, Hidalgo, Allende, Aldama and Jimenez, were exposed for a long time. Their heads were brought here from Chihuahua, where they were shot, because this had been the centre of the revolution. Dolores de Hidalgo, where the revolution started, is in this State, and one of the first things the revolutionists did was to capture Guanajuato for the sake of the means which the wealth of the mines gave them to carry on the cause. There were bloody scenes in this city more than once. When the Spaniards re-captured it, several thousand of the inhabitants, men, women and children, were driven into the market-place until it was crowded, and then, by order of the Spanish commander, they were all shot down by the troops, so that the streets literally ran rivers of blood."
"How frightful!" said Mabel, with a shudder.
"It was in revenge for the massacre of the Spanish garrison by the revolutionists," said Ignacio. "War is always terrible."

After lunch they all set out on a ride to the Valenciana mines, the most famous of the Guanajuata group. Mr. and Mrs. Brinkley, who had confined their strolling to the lower levels of the city, while the young people clambered along the hillsides, decided to go on burro-back, while horses were obtained for the others. As they started, there was considerable merriment over the figures cut by the two heaviest members of the party mounted upon the meek little beasts. "Twelve arrobas, - that is, three hundred pounds - is the regulation load for a burro," said Eliot. "So the heaviest-loaded
of these two burros has a margin of at least seventy-five pounds." "Only think! Our last horseback ride in Mexico," said Florence. " We must make the most of it."
"What a pity I haven't Bayito!" said Harry.
The Valenciana was high up on the mountain-slope, a league from the city. They enjoyed a succession of glorious views on the way. Below them the city filled its cup-like valley, and the vast plain where ran the main line of the railway spread out wider and wider in the distance, growing bluer and more unsubstantial in appearance as its expanse receded in the clear air towards the mountains that notched the horizon in the dim distance. Before them at the mine the great church towering above the village of the miners' dwellings grew larger and more imposing as they approached. They passed enormous heaps of rejected ore on the way, but, as they contained many plums of richer stone there were numerous men about them picking them carefully over on their own account, paying the company a certain rental for the privilege. They were shown the main entrance of the mine at a great hexagonal shaft, that seemed, as they peered cautiously down into its indefinite depths, as if it might reach to the centre of the earth. In reality it was five hundred meters, or nearly seventeen hundred feet, deep. It was walled in by thick masonry, and there were four hoists worked by a steam-engine - two for ore, and two for enormous iron buckets for draining the mine; when swing out above a large vat beside the shaft a trap in the bottom of the bucket would open, letting drop a torrent of water. The water was valuable for use in the boilers, and every drop possible was saved, for it is a precious commodity in Guanajuato and its neighborhood. In the vat were condensing pipes to cool the ex-
haust steam from the engine and convert it back into water to be used again in the boilers.

The superintendent of the mine offered to show them how deep the shaft was. The hoist was stopped, and a large ball of rope-yarn wound around a heavy stone was saturated with petroleum and suspended by a wire over the opening. As soon as it was still it was set on fire and let drop. It made a startling sight as it darted downward with a hoarse roar and trailing flames like a meteor, lighting up the dark sides of the shaft. It seemed to grow smaller and smaller, until it dwindled to the semblance of a glowing bullet. Its noise came up in continual reverberations. Then for an instant it was seen to light the inky surface of a pool into which it plunged, and, with the quenching of its light a denser darkness than ever seemed visibly to well up from the depths and fill the shaft, as if the water itself had by some magic spell been made to swell instantly to a mighty volume. The sound of the final shock after the heated ball struck the water, came up like the boom of a distant cannon.

The sight was wonderfully impressive. They all stood in silence for a minute or so, as if something solemn had occurred. "That made a piece of fireworks worth putting beside that natural gas well we saw in Ohio," said Harry. "In that case the fire was coming up out of the earth, and in this it was going down into it."

The superintendent offered to take them down into the mine. "Nothing in the world would tempt me to go!" said Florence, shuddering as she thought of the descent of the fire-ball into the fearful abyss. No one appeared to be enthusiastic to go, and Mr. Brinkley cordially thanked the superintendant and said their time was too limited to undertake it.

The great chapel next engaged their attention. It was so large that it would pass for a cathedral in the United States, and was the costliest and most beautiful of all the mining chapels in Mexico. The dark brown stone of its front was elaborately carved. Matching the clock in one of the twin towers there was a complete calendar of the year in the other, with a great many figures and signs. Each of the three great altars in the richly decorated interior, of intricately carved, heavily gilded wood-work, cost seventy thousand dollars apiece.

The superintendent gave them some interesting particulars about mining in Guanajuato. The Valenciana mine, in sixty years since its discovery in 1766 , had yielded at least two hundred and sixty-six million dollars, as shown by the records, but as the records were lost for some years, it was believed that the total would amount to three hundred million. One of its owners alone, Antonio Obregon, had received over one hundred and five million dollars from the mine, and his wealth had bought him the title of the Count of Valenciana. The mine, though still yielding largely, was not paying expenses now, but there was no knowing when a rich vein might be struck again. It was a curious fact that many of the owners of mines in Guanajuato that were being run at a loss nevertheless found their property profitable, for they were owners of reduction-works also, and they had the ore reduced at their own works, on which they made handsome profits. It was said that the mines of Guanajuato had yielded something like a billion dollars since their discovery.

They returned to Silao late that afternoon, and that evening on the train they all listened with keen interest to what Ignacio told them about many romantic and adventurous incidents in the history of Mexican mining; of enormous fortumes suddenly made, of others
as suddenly lost, of remarkable robberies of treasure-trains, and of the accounts of the revelation of rich mines by means of visions, and of the princely display of great wealth. One of the great mineowners in Pachuca was so rich that when his daughter was married he had the road from his house to the church paved with silver bars, over which the wedding party walked all the way.

The next morning they continued their journey. Just beyond Aguascalientes they enterd upon the branch line to San Luis Potosí and Tampico. They reached the former city, the capital of the important State of the same name, just after dark. They found it in such a blaze of illumination in honor of the opening of the railway to Tampico that from a distance it seemed as if a conflagration were raging. The station was almost in the heart of the city, and they went out to see the rejoicing. Merry, but orderly crowds filled the narrow streets. On all sides there were great festoons of Japanese lanterns, like strings of luminous beads of many colors. Along the edges of the housetops were dotted lines of tiny flame from tapers floating in little saucers of pottery filled with oil. On many of the flat roofs huge bon-fires were blazing, and Bengal flames of all colors were gleaming out continually on all hands, painting in fantastically rich hues the beautifully carved church-towers that lifted themselves brightly against the dark sky. Electric lights were abundantly sprinkled around, and in the main plaza dense throngs were listening to fine music from military bands, and splendid fireworks were incessantly flashing.
"How perfectly gorgeous!" cried Florence, in ecstasy.
"I never saw any fireworks anywhere that beat these," said Eliot.
"Here Pablo, your hand on it !" shouted Harry in enthusiasm. "You Mexicans just know how to illuminate! I never saw anything at home that could hold a candle to this!"
"San Luis Potosí probably has good reason to rejoice," said Mr. Brinkley, "for the opening of the line to Tampico will make her one of the most important commercial cities in Mexico and more than restore her to the position she held before the building of the Vera Cruz Railway diverted all the trade from the coast that way."
"What does Potosí mean?" asked Mabel.
"Treasure," responded Ignacio. "The city was founded because rich mines were discovered in a range near by to the eastward. So they called it Saint Louis of the Treasure, as you would say in English."

They canght the infection of the universal rejoicing about them, and on returning to the Ariadne after lingering late to listen to the music and see the sights, they all shared in the confidence that the fine old city was at the beginning of a busy and prosperous future. "It really ought to be a great distributing point," said Mr. Brinkley. "Here the two great railway-systems of the country, the Mexican Central and the Mexican National, cross each other and give facilities for traffic in nearly all directions. By the way, if the National were only standard-gauge we might go home that way from here. The scenery is fine and Monterey is a very interesting place. We shall have to have the gauge widened for our benefit the next time we come to Mexico!"

At the car they found a pleasant-looking young American awaiting their return. "Mr. Whorf wired me to meet you here, if possible, and to show you over our line," he said.
"Ah, then you must be Mr. McCotter, the superintendent of the Tampico Division," said Mr. Brinkley. "Somehow I had been looking for an older man. I am delighted to know you, Mr. McCotter. From what Mr. Whorf told me of your trip together in that first train, I am sure it will be a rare piece of good fortune for us to have the pleasure of your company. Unfortunately all our beds are full, but if you will put up with a mattress on the floor, I think we can make you fairly comfortable."
"Thank you, but there is really no occasion for the trouble. I have brought my own car along, such as it is, and shall get along nicely."
"At all events, you must join us at meal-times. This is a great celebration here!"
"It is indeed, and they keep it up for several days. They have a capacity for that. Fireworks, illuminations, banquets, balls, games, concerts, etc. It is like a week of Fourth of July! They enjoyed the grand excursion to Tampico and back immensely. But it could not compare with ours just before, nor will it with what we shall have this time, for the party was too large to stop over to see the sights at different interesting points. But I will bid you good night. We pull out from here at 4 o'clock, and by daylight we shall be dropping down from the table-land pretty rapidly."

## CHAPTER XVII.

## DOWN AMONG TROPICAL MARVELS.



HEY were all up betimes the next morning. Behind them, to the westward, the long, slanting shadows cast by the early sun extended over a vast plain out of whose expanse grand mountain ranges lifted themselves into the air.
As they stopped at a station Mr. McCotter said: "Now we shall soon be taking our first great drop, down into the valley of San Yaidro."
"What a funny-looking car!" exclaimed Harry, who had jumped to the ground, and was looking ahead along the train, which was a shor't one, consisting only of the Ariadne, Mr. McCotter's car, and a locomotive.
"Yes, that is my 'Canvas-back,' as we call her," said Mr. McCotter. "No wonder you laugh. The combination of your Ariadne here, and that chunky, scrubby-looking little thing hitched on ahead of her, reminds me of Landseer's picture, 'Dignity and Impudence.'"

The "Canvas-back" was simply a freight-train caboose, fitted up comfortably for Mr. McCotter's convenience in his frequent trips over the line. The peculiar feature that gave the car its name was a
canvas awning, stretched out on a level with the top of the look-out, and extending well over the sides and ends, so as to give the utmost shade possible.
"I see you have the same idea for the protection of your car that I have embodied in the double roof of the Ariadne," said Mr. Brinkley.
"Yes, and the shade from that piece of canvas, with the free circulation of air between, makes a wonderful difference in temperature. Without it, the car would be like an oven in the hot climate of the coast."

They started, and, after winding through a rough and narrow gorge of bare, baked-looking rock, they began to drop rapidly, but cantiously, in a series of sharp curves, down a heavy grade.
"How strange those mountains look!" said Harry, looking up at the heights that towered beside the narrow valley. "They are all covered with trees on one side and bare as a bone on the other."
"That is on account of the moist air blowing continually inland from the Gulf," said Mr. McCotter. "It deposits its moisture on the windward sides of the slopes, and leaves nothing for the leeward."
"That sounds grood - windward and leeward!" said Harry. "I might know you were from the coast."
"Yes, if I hadn't learnt it in Boston harbor, I might have done so at Tampico!"

As they crept along the faces of cliffs and swung around abrupt points they caught sight of lower and lower depths of the widening valley, its slopes mantled with a luxuriant green. "What a contrast from the dry regions where we have been!" exclaimed Mabel.
"And this is the dry season, too," said Mr. McCotter. "Perhaps you can imagine what it must be in the rainy months! But, as a matter of fact, it is never dry here, and these slopes are perpetually green. You would be likely to think, however, that the farther east you went the greener it grows. But the contrary is the case. Pretty soon, as we proceed, we shall find the country growing dryer and dryer. You see the land falls off, from the high table-land to the coast, in a series of several terraces. Each step forms a wide, trough-like valley running in a general northerly and southerly direction, the edge marked by a range of mountains. The winds from the Gulf, continually blowing from the eastward, blow against the eastern slopes of these mountains, and passing over their summits, repeats the operation on the next higher ranges, and so on. So the inner slopes of the ranges and the easterly sides of the valleys are left dry, while the westerly portion and outer slopes are kept moist."

They entered a wide plain where richly cultivated land stretched away for miles and miles, and kept on in a bee-line across the valley, which they perceived grew dryer as they advanced, just as they had been told. "It seems strange how the opposite sides of the same valley can have entirely different climates, one very moist and the other very dry," said Mr. McCotter. "This level here forms the first great step in the descent from the main table-land. There are two more broad plain-like steps, and then comes the great plain of the coast."
"Before I came to Mexico," said Harry, " I always thought that the table-land was all flat and even, like a table, and I was surprised to find it seamed everywhere with mountain ranges, and the plains always forming a slope like the roof of a shed; lying at different

levels between the mountains instead of all on one general level."
"Yes, Mexico is a land of mountains from one end to the other," said Eliot. "The only part of the country I have ever been in where mountains were not in sight is Yucatan, which is a sort of duplicate of Florida."
"It seems just like a rumpled sheet," said Harry. "I believe that if you could pull the surface out even, it would stretch the country out as wide as the Mississippi valley!"
"In this valley, off to the southward there about twenty miles," said Mr. McCotter, " lies the city of Rio Verde. It is a beautiful place and they raise quantities of fine oranges around there. They do something to their oranges I never heard of anywhere else; they smoke them just as hams are smoked. They say it preserves them for a much longer time and keeps them from drying up. I hardly see why it should, but of course it must, or they wouldn't do it."

Their next descent was into the beautiful cup-like valley of Las Canoas, its verdant, undulating meadows closed in on nearly every side by precipitous mountains. Wild and grotesque-looking rocks, richly dressed with shrubs and ferns, with a plumage of trees growing in every possible crevice, thrust themselves sharply up through the ground in long, " razor-backed" ridges. The course of a clear stream was marked by a line of great cypresses. There were delicate fleecy clouds floating in the tender sky, so differennt in its blueness from the dome of intense brilliancy that arched over the table-land.
"We are clearly getting down into tropical luxuriance," said Mabel. "See those beautiful great velvety-leaved plants growing all along the margin of the water. It seems like a conservatory run wild."
"Only wait for a few miles, before you think of tropical," said Mr. McCotter. Do you see that ravine down there deepen and broaden? That is the beginning of the great Tamasopo cañon."

Accompanying this ravine in its course, the train entered a narrow pass in the mountains and was soon winding along the precipitous southerly side of the gorge, passing through a succession of tunnels in sharp curves, the depths below growing greater and greater, although the railway line itself was on a rapidly descending grade. The steep slopes were thickly mantled with vegetation that softened the wild ruggedness of the outlines. "What a mottled and variegated mass of coloring! It ranges from light goldengreen tints down to the darkest shades," said Mabel.
"It looks as if the mountains were draped in rich Oriental shawls of a greenish tone," said Florence.

Ahead of them they saw a gigantic natural wall with a jagged top cutting straight across the cañon, down one declivity and up the opposite. Passing through this "Muralla del Diablo," or "Devil's Wall," as it was called, by a short tunnel cut through it like a doorway, they saw the narrow cañon widening out and revealing a vast panoramic landscape beyond. They passed out of the cañon on rounding a point, and turning abruptly to the right, their train crawled along a narrow shelf cut in the face of a tremendous cliff bounding the great valley before them. It was a sheer descent of as much as twelve hundred feet down to a dense tropical forest, the most luxuriant they had ever seen. The cliff rose above them to a height equal to, if not greater than, the distance down to where its rocky feet were slippered in the warm verdure. On the slopes of the mountains were little handkerchief-like patches where the Indians
had sugar-cane growing, the light, yellowish-green strangely marking them from afar off as they lay spread out amidst the dark foliage. With the exception of these, and a large cultivated area seen in the distance, the whole expanse seemed to be a wilderness. Far ahead, along the steep slopes of the mountains, they could trace the course of the track they were to traverse, as it showed here and there out of the thick mantle of trees, winding down and down in serpentine loops, and finally appearing directly below them, forming a straight avenue through the forest. Thence it again meandered away into the remote distance, where, as it disappeared around a far mountain shoulder, it could be seen that there were lower levels in the valley yet to be reached.
"Do you see that notch way over there in the mountains?" asked Mr. McCotter. "That is the pass through which we have to go to the next wide terrace in our descent, and we shall be there this evening."

They all stood out on the rear platform and watched the changing scenes that followed each other in a bewildering array of grandeur and beauty.

About half an hour after leaving the Tamasopo cañon they found themselves among the tall trees of the primeval forest that crowded themselves in thick ranks about its mouth. They learned with surprise that it was cultivated ground - a coffee plantation, or cafetal. For, although primeval, the rank undergrowth had been cleared away and coffee trees planted. They could see the glossy, evergreen leaves of the coffee, and its flowers of pure white, gleaming star-like out of the verdant shadow.

As they sped on, they passed many a stream of rushing clear
water. This valley likewise grew dryer as they passed to the eastward. The forest giants gave way to tall and closely growing fanpalms and thickets of bamboo in graceful plumage. At intervals they passed groups of men at work on the track - Indians mostly, and many of them wearing hardly any clothing, which none of them really needed, so far as comfort went, in that climate. All langhed heartily at one man whom they saw trudging along the track. When they first saw him he was back to, and he seemed to be wearing nothing but a pair of cotton drawers, but when they passed him they saw that he evidently wanted to look more dressed up to people whom he met, for a large red bandanna handkerchief covered his waist also, so that he seemed to be wearing a shirt "when viewed on his north side," as Eliot said, - an expression that struck Ignacio and Pablo as very droll.

Late in the afternoon they reached the Abra de Caballeros, their next pass through the mountains. The landscape equalled in its grandeur anything they had seen. The opening through the range was nearly straight, with almost perpendicular sides, and the track was laid through the bottom of the pass, following the course of the stream. Therefore they had the full advantage of the entire height in their view of the scene. On either side of the narrow entrance there stood, like giant sentinels, two great peaks with smooth-looking, precipitous faces.
"We will keep on down through the pass for the sake of the view," said Mr. McCotter. "It is particularly fine at this late hour."

It was but a short distance through, and in the soft light of the waning day another glorious panorama was suddenly spread before
them. The vast plain seemed to be almost limitless. Before them, across the valley in the faint distance to the eastward, there ran the last range to be passed before reaching the coast plain. The month of the Abra de Caballeros was still over a hundred miles from the Gulf. The plain was hundreds of feet directly down from the track, which ran along the steep face of the mountains and gradually meandered down to the lower levels.

Behind them, looking up the pass, there was an enchanting picture. On the opposite side a tremendous cliff rose in a sheer precipice to its rounded summit for a height of something like three thousand feet. The steruness of its stony face was softened by the rich masses of vegetation that clothed it. Directly at its feet the river that flowed through the pass came tumbling down in a series of great cascades for a total fall of about three hundred feet. The rocks beneath the water were all clothed with some peculiar aquatic vegetation that gave to the falls a wonderfully pure and luminous emerald color.

The train backed up to a place some distance above the falls where there was a good opportunity for a bath in the gentle rapids. The young men went down to the river through the thick jungle along a convenient path that had been cut a few days before for the previous party. They were soon merrily sporting in the delicious water which came sweeping down over their shoulders like a softly flowing mantle, as they lay reclining in great natural bathtubs hollowed out among the rocks. These had been excavated by the force of the current during the mighty floods of a thousand seasons as it hurled great boulders about in the bed of the stream.

While they were dressing they heard some unearthly yells from
somewhere up the stream. They all started in affright, not knowing what might have happened. The cries came nearer, and they recognized a familiar voice. In a moment Sam, the cook, came plunging through the undergrowth into their midst and, finding himself suddenly surrounded by a group of naked white human shapes, and not recognizing them at first in the dim light of the late dusk, he gave a shriek of terror more agonizing than ever. Even through the gloom they could see that his face was as pale as a person of his complexion
 well could be. It recalled a mass of partially consumed charcoal, powdered with its own ashes.
"What in the world is the matter, Sam?" demanded Eliot.
"O Marse Eliot, Marse Eliot!" cried the cook, recovering himself a bit, but trembling all over, so that his voice also shook, " Then it's only you and the other young gen'lemen! I s'posed f' suah you was all some kind o' wild cannybawls rov'n round heah!"
"Well, you see we are not cannibals after all! Though there's no knowing what might happen, we are so hungry for one of your good suppers, after our bath. Now tell us what you were raising all that hullabaloo about just now. The echoes have hardly died away yet!"
" Why, I went down t' the crick thah to see f' I couldn't shoot some ducks whah th' trees grow up out the water sort o' swampy like. I stood lookin' round and right to my feet there was a $\log$ lyin' in the water, as I s'posed. But, as I give it a kick to see if 'twasn't too rotten to stand on, all 't once th' nigh end opened up on me like a pair o' tailor's shears! Foh de Lawd 'twas a great bior alligator, and I could see way down into an awful deep black throat like a bottomless pit big enough to swaller th' ingine to our train! You better b'lieve, Marse Eliot, I didn't lose no time gitt'n 'way from thah!"
"Alligators here close by!" cried Harry, turning a bit pale himself. "Why, it must have been awfully dangerous for us to go in swimming here! We might have got bitten ourselves!"
"O no, there's not the least danger in a place like this!" said Mr. McCotter. "The alligators are only found in sluggish water ; in the pools and other still places. They never come down among the rocks and rapids."

The train backed up to the station at the entrance of the pass, and here they lay over till morning. It was warm enough that night, but the electric fan prevented the atmosphere from becoming oppressive, and they slept comfortably.

It was long before daylight when the train started, and when they were up they found themselves at the entrance of the passage through the last range, before reaching the coast plain. The pass was called El Boca del Abra.
"Now we shall take a look at a cave," said Mr. McCotter, after they had eaten breakfast. He guiderl them up the slope of the pass beside the track and a short climb over the rocks brought them to
the entrance of the cave. Here they found themselves in a large rotunda-like space, with walls of pure, grayish tints, stained here and there with delicate green and other subtle shades of color by the mineral-charged water that had seeped through and also formed the graceful fringes of stalactites depending from the roof.

It was quite different from Harry's conception of a cave, for they needed no torches with which to see their way; instead of having to peer through deep gloom and half imagine the shapes of things about them, the place was filled with a pleasant mellow light that poured down from above, through an almost circular opening in the dome-like ceiling. Looking up, they canght bright glimpses of the blue morning sky through a canopy of foliage sprinkled with sunshine. The roots of trees grew downward through this opening and exhibited various stages of growth, from fringes of delicate filaments suspended in the air to strong, slender columns that formed an irregular ring in the centre of the rotunda, apparently supporting the roof, in rivalry with the stalactites. Directly beneath the opening there grew a mass of shrubs and plants in the light which it afforded, forming a sort of natural flower-bed.

They passed on through a series of chambers, some still loftier and others low and spreading, but all having the skylight feature. Some of the rooms were at higher levels than the others, and from one they could look down through an opening with a sort of balcony into another in which they had already been.
"This is the most delightful sort of cave I ever heard of," said Fiorence.
"All the caves in this part of the country are like this; they all have skylights," said Mr. McCotter. "At one place further down
the line you can see in the distance an opening in the side of a mountain, like a great arched portal. It is two or three hundred feet high, and is called La Ventuna, or the Window. The cave is something over seven hundred feet high from floor to ceiling, and forms a magnificent great hall, well lighted from above. It was once the abode of a band of robbers, and in the walls are still the iron rings where they used to tie their horses. It is really a hollow mountain, a sort of great stone shell.
"Here are the tracks of some animal," said Mr. Brinkley, pointing to some footprints on the floor.
"Fresh tracks, too," said Eliot. "It must have been quite a sizeable beast."
"Why, they are tiger-tracks !" exclaimed Mr. McCotter.
" Tiger-tracks!" shrieked the ladies, in unison.
" Why, perhaps he's still here !" cried Harry.
"I think not; he's probably gone out to look for his breakfast!" said Mr. McCotter.
"Well, I for one do not intend to give him a chance to find it here," said Mr. Brinkley.

The ladies had not waited for further explanations, but had rushed off in the direction whence they had come. The others followed, by no means slowly. "Suppose we really had seen the eyes of the tiger himself glaring at us out of some of those dark recesses in there, like two balls of fire! How we would have come piling out of that cave then!" said Harry, when they were outside, and breathing freely again.
" It makes me shudder to think of it!" cried Florence.
"I shall always insist that we have had a narrow escape," said

Mabel. "The fresh tracks bring the real tiger near enough, and I shall make the most of it when I tell about it at home. It is too good an opportunity not to be improved. Now after we once get started again on the train, I should really enjoy a sight of His Tigership peering over the rocks at us."
"But the tiger is an Asiatic animal," said Harry. "How is it there are tigers here?"
"It is really the jaguar," said Eliot. "But it is also known as the American tiger, and the Mexicans call it the tigre. It looks something like a tiger, and is beautifully spotted, but is much smaller."

Just as they had reached the train they were startled by the sharp report of a gun in the direction whence they had come, followed by another. What could have happened?
"I saw some of the men going out with guns just before we started to go to the cave," said Harry.
"The second one was a rifle-shot," said Mr. McCotter, " but then they might have fired at a parrot with a rifle by mistake. Jack Bliven, the fireman, has a shot-gun and rifle combined."

Very shortly there appeared up on the slope above them two men bearing the limp carcass of a tawny animal.
"They've shot the tiger sure enough!" exclaimed Eliot. "What luck!"

It was Bliven and Antonio, the latter a Mexican brakeman.
There was great excitement all around when the tiger was laid on the ground before them, and the two men were highly elaterl.
" Mighty lucky my shot-gun was a rifle too!" said Bliven. " Antonio and I went out after birds, and we came suddenly upon
the tiger. Antonio saw him first and gave a yell; he was crouched among the rocks not over ten paces away, all ready to spring at something. I raised my gun and fired a charge of bird-shot at him, not thinking; it peppered him and maddened him so that he gave a leap right at me, when I remembered the rifle and fired instantly. The beast dropped dead right at my feet."
"How splendid!" exclaimed Mabel. "Now the whole adventure is complete!"
"What an elegant creature!" said Florence, looking sympathetically at the supple, graceful form, with its beautiful, delicately marked skin, and the yellow eyes, glassy in death and no longer fierce. "The poor thing!"
"Suppose the 'poor thing' had jumped at you in the cave," said Eliot with a laugh. "I am afraid that it is a waste of sympathy to expend it upon tigers."

The train started and shortly passed through a tunnel and out of the last mountain gorge. The great plain of the coast stretched ocean-like before them, covered with a forest which, with its varied tints of foliage, looked much like a New England woodland in springtime. As was the case with their previous descents to lower levels they went along the precipitous face of the mountain, gradually approaching the even ground of the plain.
"We are getting near the great Choy cave," said Mr. McCotter, while they were still descending, and at his suggestion they all went out onto the " quarter-deck." "Now look down at the track. This bridge is built directly across the 'skylight' of the cave."

As they were passing over a substantial iron bridge, the train moving slowly, suddenly there yawned beneath them a deep, pit-like
chasm. Far below, in the shady abyss, they saw the glinting of a stream rushing rapidly over the rocks. "It is two hundred and five feet from the bridge down to the water there," said Mr. McCotter. "Just back of those rapids the water in the cave is deep and still, and reaches back a long ways, covering the floor to a great depth - over fifty feet, at least, so that Bunker Hill monument, which is two hundred feet high, could be stood upright in the chamber with plenty of room to spare between its top and the roof."

The train stopped and they walked back to the bridge, through the open-work of which they peered down into the dizzy depths. From the side of the track the mountain side was an almost perpendicular wall of rock down to the plain, nearly two hundred and fifty feet below. The Choy river came tumbling out of the cave in a lively cascade and then meandered briskly off into the plain. The young men lost no time in descending into the cave to enjoy the morning bath they had been promised there. The ladies wandered up and down the track, enjoying the grand prospect and gathering the wild-flowers which they found growing in great profusion. Among them were two beautiful kinds of the passion-flower, one small and delicate, with stems and sepals moss-covered, like the moss rose.

Mr. Brinkley accompanied the young men down the steep path over the rocks in the face of the precipice to an upper entrance to the cave, something more than half way to the bottom. The chamber where they entered was partly filled with loose rock that had been blasted away in the construction of the railroad, and Mr. Brinkley decided not to venture his considerable weight down the uncomfortable slope, but content himself with a survey from above, where there was a good view over the interior.

The cave was composed of two adjacent chambers, narrow and lofty, something in the style of a cathedral with a double nave. The farther chamber ran back into the mountain for some distance, and the two were connected by a broad, high arch, resembling that of a theatre proscenium, though grandly irregular in outline.

The young fellows were soon in the water, and the vaulted ceilings resounded with their merry cries as they sported about. The water was crystal clear and of a rare azure hue, through which the gleam of their white bodies had a strangely pallid and unearthly effect, in contrast with the dark translucence about them.
"It seems as if this were some ancient abandoned cathedral converted into a grand swimming-bath," said Eliot. "But isn't it delicious! The temperature of the water is perfect; we could stay in here all day without fear of a chill!"
" I, for one," shouted Harry, " am ready to turn merman on the spot and take up my permanent residence in Choy cave!"
"How remarkably buoyant this water is!" remarked Ignacio.
"It strikes me as being even more so than salt water. I can't account for fresh water having such a property," said Eliot.
"Some of the boys," said Mr. McCotter, "think that it is probably due to the force of the water as it somehow comes welling up from below, and so having a greater sustaining power."
"Isn't it because it perhaps carries in solution a large amount of lime, or other minerals, just as salt gives the water of the ocean its density?" asked Harry.
"I shouldn't wonder if you had struck the true reason, Harry," said Eliot. "As all these mountains are limestones, this water must certainly carry a large amount of lime in solution, and it would naturally have such an effect."
"Do you know there is a second story to this cave, in back there?" said Mr. McCotter. "One time a number of the railroad men were up here and while Mr. Whorf was looking around up the mountain, the rest of them went in swimming here in the Choy. Mr. Whorf and his party found the entrance of another cave up there, and went in to explore it. They saw that at one end it fell away into a dark pit of unknown depth, and they began to throw rocks down into it to see how far it went. The rocks went rolling and crashing down, when suddenly their blood was almost frozen in their veins and their hair fairly stood on end at the sound of a succession of piercing yells of the most frantic and panic-stricken description. A Mexican servant with them dropped on his knees with terror, and for a moment they were prepared to believe in the existence of the gnomes that are said to inhabit the crevices of the earth. They had sent their shower of rocks down among the swịmmers here, who were naturally terribly frightened, but fortunately no one was hurt."

Out of the water, in the back part of the cave, there rose a pinnacle to a height of something like twenty feet, looking, in that position, like a pulpit. Its face was nearly perpendicular, and natural steps in the rear made its top accessible.
"What a place for a dive!" cried Eliot, and the swimmers made for it.

With one of the young men poised like a statue on the peak, ready for a plunge, some clambering up the sides or grouped on its sloping flanks, and others in the water and clinging to its base, the scene was a subject for a sculptor. It seemed like the realization of some imagined scene from classic mythology.

The time for them to leave seemed to come all too soon, although they had been for over an hour in the water. The prolonged whistle of the locomotive, sounding strangely down from above, warned them that the train was ready to start, and brought them back into the nineteenth century from the days of ancient Greece, in which for the moment they were living.

## CHAPTER XVIII.

a VISIT TO ANCIENT RUINS. - AT TAMPICO.

"HOW about that ancient ruined city that Mr. Whorf told us about?" asked Mr. Brinkley at dinner time, as they were on their way across the plains, now open and almost prairie-like, with island-like clumps of trees here and there. There was no dust, the windows were all open, and though the heat was like that of July, the motion of the train made a comfortable breeze.
"The Aztec city at Kilometer twenty-one? We will stop and see it if you like," said Mr. McCotter.
"By all means let us do it," said Mr. Brinkley. "We must not miss an opportunity like that. It isn't every railway that runs past a ruined city of untold antiquity."

The train came to a stop in a thickly wooded region and they all got out. Mr. McCotter led the way to a path that ran into the forest, and they followed it along gradually rising ground. "The men cut out the underbrush along here with their machetes for Mr. Whorf's party the other day, so we shall have a clear passage. Otherwise we should be likely to get completely covered with pinolillas," said Mr. McCotter.
"Pinolillas?" asked Harry.
" Little ticks about the size of a pin's head. There are millions of them on the bushes in this country. They transfer themselves to you and cling to your skin and bite. They are not dangerous, but fearfully annoying. We shall probably see as much of them as we care to."
"Well, pinolillas or no pinolillas, I am going to see that city," said Florence. And that was the unanimous sentiment.

The woodland, casually regarded, had little to distinguish it from a New England forest of deciduous trees. Harry said it reminded him of the time when he went with Mr. Hunt to see the ancient wolf-pits in the Lynn woods. There was one marked feature, however, that told them they were not in New England, and that was the low plant, profusely covering the ground with its clusters of stiff dagger-shaped leaves like the pine-apple. The outer leaves of each plant were green, and the inner ones a vivid vermillion, like the most brilliant autumnal foliage. The plants bore their fruit on a spike-like stalk, in the slape of lemon-colored balls, about the size of a plum. Harry asked a Mexican who had been sent to accompany them from the railroad section-house in the neighborhood what they were, and was told that they were called " guarapes;" they were good to eat, only he must be careful not to eat anything but the pulp, or his mouth would be fiiled with prickies. Harry tasted one and found it delicious, so he and Pablo cut a stalk and had a feast of the sweet, juicy, rich-flavored pulp. But, after all, their tongues began to feel as if they had been eating the outside part of a pineapple, and that evening at supper, when they went to drink their coffee, in the place of taste they felt the sensation of drinking millions of minute needles in liquid form!

They came upon the first vestige of the ruins at a point where the path began to ascend a considerable slope. The lines of a walled trench, like the ditch of a fort, were very plainly to be traced, and there lay prostrate on the ground a huge stone block, nicely hewn, and having a rude semblance to a human face. Farther up the hill they came to numerous small pyramids, standing in irregular lines that went on into the forest indefinitely. These pyramids were truncated; that is, they were not continued to an apex, but about twelve or fifteen feet from the ground their steep slopes terminated in a level space. They were faced with well-hewn slabs of stone, forming a shell that enclosed an interior of earth, ashes, and broken pottery, as was shown in the case of one that had been partially excavated. The pyramids were well overgrown with shrubbery and trees. The young folks set about industriously grubbing in the excavated place, and were rewarded by finding numerous fragments of decorated pottery and some little figurines of terra cotta. At one place there was a large square platform of stone, three or four feet high, and it was conjectured that this was the site of a temple, while the pyramids were the sites of the ordinary dwellings of the people, built of reeds or wood. "This ridge is covered with these structures for several miles," said Mr. McCotter. "It appears to have been a large city in the ancient days. There is considerable carved stone among the ruins. At a corner of this stone platform there was a handsomely carved head, but it was carried off by one of our parties."
"How instructive it would be if Cushing and Bandelier could only be with us now!" said Mr. Brinkley. "Two such men together could tell us a great deal about the past of this place. I wonder what kind of people they were!"
" Of course it is called an 'Aztec city' only to indicate that it is ancient," said Eliot. "The Aztecs lived on the table-land, you know, and the people here on the coast were probably quite a different race. Very likely these people here were more like the Mayas of Yucatan. Today the great bulk of the population of Mexico lives on the table-land, and the coast regions are sparsely populated. It is generally supposed that, for the development of energetic and industrious qualities, men must live in a more temperate climate; that here on the coast they are inevitably listless and indolent. That certainly seems to be the case to-day, but in former times there was. evidently a large population in the hot countries of the coast. Probably it was a race naturally fitted to work under such conditions, for the building of these extensive cities shows that they must have been industrious, and the magnificent architecture still remaining from the ancient civilization of the Mayas proves that that race, though living in the hot country, must have been much more advanced than the Aztecs of the temperate table-land."
"We ought to have a name for this city. Suppose we call it Mayaville!" suggested Mabel, with a laugh.
"O horrors!" cried Florence. "We might as well make it Jacksonville, or Whorftown, in honor of our friends, and done with it!"
"We must have a good name, and by the time we get back to Boston perhaps we can think up something nice-sounding and appropriate," said Mrs. Brinkley.

On their return to the train, every one retired to make a careful search for pinolillas, of whose presence ummistakable indications were felt. It was well along in the afternoon when they came in sight of
a great river. Shortly after they stopped at the station of Tamós, near the junction of another great stream, the Tamesí, with the former, which was the Pánuco, the river near the mouth of which lies the city of Tampico. Both of these rivers are navigated by steamboats far up into the interior, for a distance of something over a hundred miles.
"We have got so used to regarding the dry interior as typical of this country that it seems strange to see so much water as this anywhere in Mexico," said Mr. Brinkley.
"There is no dearth of water in this part of the country, as you may see when I tell you that our 'dry season' is still at its height," said Mr. McCotter.
"I only wish we had time to make a steamboat trip up the Pánuco," said Mr. Brinkley. "Mr. Whorf tells me the scenery is wonderfully grand. Some time I mean to come down and devote several weeks to this part of Mexico, and see that glorious waterfall, the Salto de Rascon, and the grand valleys where the Pánuco winds down throngh the mountains, and some of the other things which it is now so tantalizing to hear about."
"And I want to go across country from here up through the Huasteca to the City of Mexico, a route which is said to pass through absolntely the very finest scenery in the republic,' said Eliot.
"Me too!" said Harry.
"Ah, the thirst for Mexico is one of the most inveterate of appetites," said Mr. Brinkley, laughing. "Once acquired it is impossible to break it off!"
"Tamós!" said Eliot. "This is the place where that letter was sent that Mr. Whorf told me about. You know the railway-shops
are here at present, and one day a letter on some official business was written at the headquarters in Tampico to be taken up here by the train. By some mistake it got into the regular mail and went abroad - without any stamp, at that. In the course of I don't know how many months - considerably over a year, I believe, - the letter came back, having been all round the world, making stops in dozens of countries in about every continent. It was directed simply to 'So-and-So, Tamćs,' and it turned up all covered with writing: 'Try China,' 'Try India,' 'Try Egypt,' ' Try Hungary,' 'Try Australia,' etc., until finally there appeared ' Try Mexico !' and the letter came to hand at its intended destination, with five cents due to meet the expense of its adventurous tour."
"That shows the efficiency of the world's postal service today," said Mr. Brinkley, "and how slight is the risk of the loss of a letter. And it shows the practical value of a governmental service. If the carrying of mails had been entrusted to a private corporation, what likelihood would there have been of that letter ever reaching its destination?"

The train rumbled across the long iron draw-bridge that crossed the Tamesí, and soon drew up at the station in Tampico, close to the water. Harry's eyes sparkled at sight of the sea-going craft anchored in the broad stream and moored to the banks. Beside
the schooners and brigs there were several steamboats, a large fleet of lighters, and a multitude of canoes - long and narrow, and many were hollowed out of the single trunks of enormous trees. The picturesque city rose up on sloping ground from the river side - a sort of island in the dead level of prairie-like country through which the river coursed between the flats.
"Tampico is evidently quite unlike any other city in Mexico," said Eliot, as they looked towards the town. "Its architecture seems like a mixture of Havana, New Orleans, Quebec and Mexico - with just a dash of Kansas City thrown in, in the shape of those wooden shanties."

As there was time for a stroll before sunset, they all went out to take a look at the place. "You might know the sea was near," said Harry, sniffing the moist wind blowing in from the Gulf with a soft, velvety touch and a salty flavor.
"It's warm enough," said Florence, " but how refreshing. By shutting my eyes I could fancy myself at Newport."
"How gorgeous! Why, the town is a regular bouquet!" exclaimed Mabel, looking at the hues of blue, and pale green, and rose-pink, and lake, etc., that covered the walls of the buildings."
"They've just been painting it up in honor of the railway celebration, and they've let themselves loose in color. White paint on the walls is forbidden here by law, on account of the glare it makes in the heat," said Mr. McCotter.
"Then they'll be confiscating the Ariadne for her transgression, I fear!" cried Mr. Brinkley, in mock alarm.
"Mira los cuervos! Look at the ravens!" exclaimed Piablo.

The pavements were dotted with ravens and blackbirds, hopping about and chattering in a lively manner.
"They are our scavengers," said Mr. McCotter. "They are protected by law and nobody harms them."
"They seem to have them in place of the zopelotes, or buzzards. Curious there are no buzzards here, and Vera Cruz is full of them," said Eliot.
"O the dear little creature!" cried Florence. They were at the waterside near the great market-house, and a number of dugouts were lying in the canal-like inlet there. In the stern of one of them a pretty little Indian boy was lying asleep, with one of his bare legs dangling over the side and his foot in the water. While they were admiring the charming picture he made, their laughing comments aroused him; he raised his head and looked at them a moment and then lay carelessly back and dropped to sleep again.
"Wouldn't he jump, though, if a big fish should bite his toe!". remarked Harry.

Just beyond the market a street from above descended to the water-side by a broad stairway of stone. Strolling about the town they came to the church on the central plaza. It was a plain and insignificant structure, in marked contrast with the elaborate churches they had found everywhere else. From the tower they had a sweeping view over the country, spreading away wide, verdant and level into the misty distance. The two great rivers were looped in broad silvery bands over the open savan-
 nahs. In nearly every direction there were large lagoons occupying almost as much of the surface as the solid ground. Here and there
groups of feathery cocoanut-palms stood on the banks of the stream. Down the river, to the eastward, was a range of high bluffs, partially cutting off the view of the Gulf that lay, serenely blue, reaching off to its straight horizon line.
"The whole country seems fairly sloppy with water!" remarked Eliot.

Walking through the business part of the town they were amused at the audacity and fearlessness of the ravens, as they gathered on the pavement, noisily chattering. On one corner, on the sidewalk, a dog lay indolently stretched out asleep, after the canine fashion universal in Mexico. One of the ravens from a group close by hopped onto the dog's flank and stood there for some time. The dog did not stir !
"Ah, here is Captain Kendrick," said Mr. McCotter, and he presented the commodore of the company's fleet of lighters to the party. The captain was a typical " old salt" from Cape Cod, whose sands have produced one of the finest races of sailors in the world.

It was arranged with the Captain that they should go down the river and out to the bar the next day on the tug, and on their return they were to enjoy a fish dinner on board, with a crab soup which, it was warranted, would make even a Delmonico turn green with envy.

The next morning they all started down the river on the Orinda, the great tug - all except Eliot, who declined to improve the opportunity to test the contractile force of his stomach on the tumbling seas of the bar. Harry was soon engaged in intimate converse with Captain Kendrick, exchanging reminiscences of the New England shore and telling the Captain all the maritime gossip of the

year at home, in return for a good stock of information about the Mexican coast.

The Pánuco pours its great volume out into the Gulf so steadily that the slight rise and fall which the tide has in that part of the world affects but slightly the force of its flow. But where the river current dissipates itself in the salt sea the waves of the latter heap up the loose sands in a great bar across its mouth. The bar is passable only by a shallow, tortuous, and constantly shifting channel. But for this obstacle to navigation, Tampico, from the earliest history of the Spanish occupation of Mexico, would have been one of the greatest ports of the New World, for the river itself, with its great depth, affords from far above the city down to its mouth ample and safe shelter for hundreds of the largest ocean steamships, could they only cross the bar. Taking example of the grand work of Captain Eads at the mouth of the Mississippi, the railway company was now engaged in securing this invaluable advantage for Tampico by the construction of jetties out over the bar into deep water, reaching from the shore on either side of the river mouth for over a mile off into the Gulf. The steady wash of the Pánuco, whose volume is greater than that of the Mississippi at the South Pass, would scour out the channel and make a permanent passage across the bar, deep enough for the largest vessels.

The trip down the river was a pleasant one of something like six miles. The wind was blowing steadily from the eastward and when they reached the Gulf they could see the shallow greenish stretch of the bar before them covered with tossing white caps, as if the mouth of the stream were filled with a set of savage, glittering teeth. The tug made for this directly. It looked as if there were no pas-
sage across the threatening barricade of breakers, but Harry could see, from in front of the pilot-house, where he stood, that there were patches of smooth water amidst the foam-caps here and there, apparently detached, but in reality connected and forming a serpentine course over the bar. They were almost in the midst of the wickedlooking breakers, which were tossing angrily on both the port and starboard bows, when Captain Kendrick remarked that it seemed hardly prudent to venture across in that wind. So the boat's course was changed, and in a moment more she was again in smooth water and headed shoreward, much to the relief of one of the young ladies, as well as of Ignacio. For, in the minute or so while they were tossing on the inner edge of the bar, both Ignacio and Mabel were visibly affected by the motion, and the sympathetic glances of mutual commiseration that they cast towards each other caused not a little amusement to Pablo and Harry, for the younger Mexican showed no signs of sea-sickness.
"You are getting broken in for Massachusetts Bay next August in first-class shape, Pablito," said Harry.
"I think the ancient Visigoth who transmitted his physique to Pablo must have been a viking!" said Mr. Brinkley, patting the lad's shoulder.

They came to anchor off the northern bank of the river mouth, where the headquarters of the harbor-improvement works had been established. The work on the jetties had only just begun. A rowboat put off and in it they all went ashore. They were surprised to be met on the beach by Eliot, who had driven down from the town with Colonel Wrotnosky, the chief engineer of the harbor works, in the details of which, Eliot, as an engineer, was deeply interested.

The boys strolled off along the beach, which was bordered by sand-dunes and seemed little different from a beach of the Northern coast in its general appearance, save for the luxuriant and brilliant beach peas, primrose and convolvulus mantling the sand at the base of the dunes. Roaming off for some distance to the northward of the tall, skeleton-like iron lighthouse tower, Harry took advantage of the opportunity to initiate Pablo into the sport of surf-bathing, which they found delightful in the warm salt water, although they did not venture out to any depth, as Captain Kendrick had warned them of the big and hungry sharks that lay in wait off the shore.

The huge trunk of a great dead cedar with fantastically gnarled branches, that had been tossed up by the waves, was lying on the shore, close to the water. Three young Mexican peones were sitting on the trunk and watching the boys sporting in the water. As they scampered past the tree, splashing in the edge of the surf, Pablo started back in affright. "Mira! Mira! la culebra!" (Look! look! the snake!) he shouted.

There, stretched out on one of the branches below, near the sand, in a snug recess, and hardly distinguishable from the tree in color, lay the thick folds of a snake, evinently enjoying a siesta. To Harry's startled gaze it seemed as big as a boa constrictor. The three peones leaped from their perch in quick alarm at Pablo's words. One of them, siezing a long stick of driftwood that lay on the beach close by, approached cautiously and gave a poke at his snakeship, who, with an angry hiss and an agile wriggle, disappeared beneath the trunk. He was soon discovered, gliding up out of the water into which he had escaped, making for the tree again, beneath which he once more vanished. They had all armed themselves with stakes
by this time, and by dint of much thrusting about, they finally succeeded in dislodging and slaying the snake, which after all proved to be only about four feet long, though very thick. "Pooh! I have seen black-snakes bigger than that at home!" said Harry, contemptuously. But, nevertheless, he took the reptile by the tail when they returned to the boat, and trimmphantly exhibited it as evidence of their adventure.

## CHAPTER XIX.

THE BRIDGE OF GOD.

THAT evening they bade good-bye to Tampico. Morning found them again ascending the wonderful slopes of the valley where the great opening of the Tamosopo cañon showed magnificently before them in the sublime mountain wall. "There is one more sight for you that has been saved for the return, just to show that you have by no means exhausted the wonders of this country," said Mr. McCotter, who was accompanying them as far as the end of his division, at Cárdenas.
"And that is the Puente de Diós, I suppose," said Eliot.
"The Bridge of God - it ought to be something grand to be worthy of that name," said Mr. Brinkley.
"Any chance for a swim there?" asked Harry.
"Just wait and see!" said Mr. McCotter, significantly.
"Well - we can't expect anything else to come up to the Choy cave in that line!" remarked Harry, doubtingly.

The train came to a halt in the grand avenue made by the railway through the luxuriant forest of the cafetal, and they all entered upon a path that led through the superb tropical growth. The trees were fairly swathed with orchids, and gigantic creepers united their branches in a tangled and fantastic network. The ground was carpeted with exquisite ferns, and the coffee trees that had been planted all around gave no aspect of cultivation to the scene. They had an
overawed and juvenile air as they grew slenderly in the shade of their huge forest brothers. The pleasant rushing music of falling water grew more distinct as they advanced. They descended cautiously a steep slope, that was slippery with the moist and heavy black soil. At its foot they came to the edge of the stream and paused in awe-struck ecstasy at the spectacle before them. They stood on an irregular shelf of rock and below was a large pool of a marvelous azure hue. Facing them a cliff rose from the water in an uneven wall, its front tapestried with a dense matting of ferns and moss. Over this vines were gracefully festooned, and the rich green surface was starred with
 brilliant flowers. The cliff was crowned with a heavy bank of glossyleaved trees. A large water-fall came tumbling into the pool at one end, intensifying the luminous azure of the water with the contrast of its snowy foam. All over the face of the cliff there came tinkling down a shower of fine streams, making a lace-like aqueous embroidery over the background of velvety green.

The mineral held in solution by the trickling water had united with the sponge-like mass of the roots of shrubs and plants and had formed smooth, sloping projections of a strange-looking stony substance, brownish in hue, that was both mineral and vegetable in composition. Over the irregular, ragged edges of these grotto-like roofs the fine streams came pouring. It was the mineral contained in the water that gave it its bluish color, and such water is known in

Mexico by the specific name of agua azul, or "blue water."
"Fairyland! Enchantment! This realizes the magic of those words! I wonld never have dreamed that the world could anywhere show a spectacle of such exquisite beauty as this!" murmured Mabel, after they had contemplated the scene in silence for several minutes.
"And the music of the water!" said Mrs. Brinkley, after another pause. "The cadence seems like that of a never-ending symphony! The delicate treble of those fine descending liquid lines makes a constant accompaniment to the full deep song of the cascade. We can fancy them the strings of a harp, swept by the hand of nature."
"But where is the bridge?" asked Harry.
"Just before us," said Mr. McCotter. "But we cannot see where the water flows under it, so this pool appears to be landlocked."

The young men followed Mr. McCotter's guidance across the bridge, while Mr. Brinkley remained behind with the ladies. Mabel had brought her water-colors and she seated herself near the edge of the pool to make a sketch of the scene.

A roundabont way took the young men down to the stream below the bridge, and they were soon in the water, which they found of the same delicious temperature and satiny touch as in the Choy cave. Wading through swift rapids, against which they could hardly make their way the current was so strong, they found a deep still place above. The water had the same sustaining power, also, that they had observed in the Choy cave. In the rocky wall rising out of the calm blueness of the stream there yawned the dark mouth of a cavern, and directly into its tunnel-like space they swam. Some birds
above them raised a shrill protest at their intrusion, and their noise made the mild gloom of the place seem a trifle uncanny. Suddenly a soft, mysterious bluish twilight began to diffuse itself through the obscurity. Then, almost before they had time to think whence might proceed so strange a dawning, they found themselves laved by a luminous flood; all around them and beneath them the crystalline water was filled with an intense azure radiance, like that of some wondrous jewel that steadily glows with its own light. The light proceeded from below, and it seemed as if they were floating in the ambient ether of limitless space. To Harry it was the most wonderful sensation of his life, and for the moment he felt as if he had suddenly been removed far from this world and had entered into the wholly new experience of another existence. "If I should really die I wonder if it would seem anything like this!" was the thought that passed through his mind.
"Que milagro!" said Pablo, who was swimming at his side, speaking softly; "Somos como los ángeles flotando en el cielo!""What a miracle! We are like the angels, floating in the sky!"
"In heaven, yes! and there is the portal!" said Eliot.
Indeed, as they turned a corner where the irregular angle of the rock made a dark, uneven line sharply distinct down into the heavenlike depths, the noble opening of a great arch revealed itself before them. It was the arch of the Bridge of God, submerged in the water, and hidden on the side where they had first come upon the stream. It was through this arch that there poured into the cavern all that flood of wondrous light, proceeding from the pool above.
"The Puente de Diós! Rightly is it named, giving entrance into this heaven!" said Ignacio.

Along the sides of the cavern the irregular walls presented beneath the surface convenient shelves here and there, where they could stand and rest, with the water up to their necks. In the wall just above the arch, and a little to one side, above the surface of the water there was an opening that made a convenient window looking out upon the fairy pool. Harry peered through this, and saw Mabel sitting on the bank opposite, engrossed in her sketching. Mr. and Mrs. Brinkley and Florence were resting on the rocks towards the cascade, looking on at the scene as if they could never get their fill of its beauty. "Just look out of this window, Nacho!" said Harry, as the young Mexican came swimming up. And, as Ignacio's face appeared at the opening, Harry mischievously called "Hoo-hoo!" from over his shoulder, in a bird-like tone. As Mabel looked up and recognized the apparition in pleased surprise, Ignacio drew back in dismay, and Harry laughed: "Don't be afraid, Nacho! She can only see your face!"

On their way back throngh the cafetal Eliot said: "What wonderful experiences those two have been: The Choy cave and the Puente de Diós. In the Choy cave we went far back into the ages of dim antiquity and descended to live for two hours among the shades of the Grecian underworld. The Bridge of God has carried us forward, and given us two hours of celestial paradise!"

When the train had started, and they were all enjoying again the wonderful scenery of the ascent to the Tamasopo, Harry exclaimed: "I wonder if there were any snakes in those woods!"
"Mercy! I wonder if there were!" cried Florence, with a sort of retrospective terror in her tone. "The idea never entered my head! If it had, I might have been frightened half to death. But I didn't see a living creature, except the birds."
" I've only seen one snake in Mexico," said Harry. "And one scorpion, but not a centipede or a tarantula. I don't think there is much to be afraid of in the venemous things of the tropics, after all!"
" We have been remarkably free from startling adventures for a long voyage like ours," said Mr. Brinkley.
"Yes - " said Eliot; "Let me see - The most exciting thing was that runaway engine. Then Sam got scared by an alligator, and we all came near seeing a live tiger, and Harry and Pablo helped kill a snake. That's all!"

The next morning they were in San Luis Potosí. Here Ignacio and Pablo were to leave them, returning to the capital by way of the Mexican National Railroad. For they had planned to stop over at Dolores Hidalgo, the Mexican Mount Vernon, to see the home and the relies of the father of their country. It was at Dolores that Hidalgo, the patriot priest, gave the signal for the struggle for the independence of Mexico. As the time approached for parting, Harry almost laughed to see the downeast look that Ignacio wore. "Come in here a minute, Nacho!" he called from the dining-room doorway.

Ignacio followed, and Harry, taking him to the sofa of his berth, mysteriously drew the curtains and said: "Look here, old boy, you are looking so blue I thought I might cheer you up a bit! Here is something I found among Mabel's sketches."

As Igmacio's glance fell upon the watercolor that Harry held before him his eyes opened wide, a happy light came into them, and his lips parted in a joyous smile. Mabel's sketch was one she had made the day before at the Puente de Diós. Its subject was that
window looking out from the cavern upon the fairy pool. Framed by ferns and half curtained by drooping vines, Ignacio was confronted by his own brown, handsome face, his large dark eyes peering out like those of a young faun, and the thick clusters of his blue-black hair hanging low over his forehead, wet from the plunge from which he had just risen.
"She must carry somebody's looks pretty closely in mind to be able to do a portrait like that from memory!" remarked Harry, with significant stress.
"Truly the Bridge of God has borne me into heaven !" Ignacio murmured.

It was a happy face that the young Mexican wore when he and Pablo stepped out upon the station platform just before the Ariadne moved away. And Mabel's face also became radiant as he said, with an expressive look, "When Pablo goes North to school, he will travel in my care."
"We shall all be delighted to welcome you," said Mr. Brinkley, and the response that Ignacio read in Mabel's eyes told him that there was one from whom a particularly cordial reception might be looked for.
"Good bye!"
"Hasta la vista!"
And the train started.
That night, as they were speeding northward beyond the tropics Harry called from his pillow across to his companion : "Say Eliot! It looks as if you were going to have a Mexican brother-in-law!"
"So it does! And Nacho is a splendid fellow!"
"Haven't we had a good time, though?"
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