

Rio April 8. Arise at 4:30 am. Take Central at 6 a.m. with Dr. Samuel Uchoa - change at Entre Rios to Leopoldina narrow gauge. The country out of Rio is very rough and very beautiful - The Central is dirty but possible - the tunnels are particularly stifling - on the Leopoldina one loses soon all fear of death - "one cannot harbor a constant horror for more than 30 minutes at a time." - as Dr. Belfort Duarte says - "the human mind and the human body have wonderful powers of adaptation" I had the impression before this trip that the Brazilian railroads were slow - and so they are - 5 minutes or 25 mean nothing to them when stopped at a station - unless the passengers are eating when they are all too anxious to leave - but although their engines burn wood for fuel, they get up a wonderful speed between stations - which is greatly increased to the passengers senses by the condition of the track. I would run trains much slower over those tracks. Dining car service at \$3<sup>00</sup>

*Luiz Vargas*

Arrive at Porciuncula at 8:30 p.m., meet Dr. Tancredo Lopez and Dr. Luiz Vargas who is to go to Recife with me. I discover that springs are not recognized as an essential part of a bed by the hotels of this region. Sleep under a mosquito net for the first time.

April 9. Porciuncula - 88% H.W.  
95% O.V.  
no malaria.

Visit Fazenda on horse back - water falls and water power.

Cost of dormitory and eats for 13 men, 1:500<sup>00</sup> mez.

Dr. Calvet arrives

Dance given by Dr. Tancredo

Seaman's army shoes.

April 10. Itaperuna - 100% malaria - We make horseback tour of inspection of drainage work done by IHB - 3 months has caused some obstruction by vegetation. Work was stopped 3 months ago because

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men were too sick to work - the people all look sick and anemic - the Dr. (Dr. Vargas) and the barber and the IHB men are the only people here with any Hb.  
Dr. Calvet - the prefect is to conserve the work.

An intensive therapeutic campaign is to be inaugurated.

Dr. Uchoa goes to Campos.

April 11. Sunday - make night call on Handcar with 4 men power to Fazenda - 100% of people here with large spleens and ulcers on feet.

April.12. Call at Turkish home - former member of Sultan's Orchestra - Xian - 100% of malaria - see enough here to justify coming to S.A.; people really ill all the time - some days worse.

April 12. Dr. Calvet's birthday.  
Brass Band from Natividade - Flowery speeches, flowers fireworks - Doces - ~~Beues~~ - and cervejas - dance until 3 a.m.

*6 day trip  
8th to 13*

April 13. Return to Rio - 3 hours late - very dirty - very tired. The engineer is entirely too kittenish with the airbrake. Arrive at hotel at 1 a.m.

April 14. Dinner at Dr. Hydricks

April 16. Visit Jacarepagua with Dr. Tomas Alvez - see latrine work. Very beautiful location - many tangerines.

April 18. Visit Corcovado with Dr. and Mrs. Hydrick and Mr. and Mrs Burr of Pneumatic Tool Co. of Cleveland, Ohio. Wonderful view of city, bay, and mountains and the sea. ~~Breakfast~~ at the Suisse Restaurant.  
*Lunch*

April 19.  
Visit office in Nichtheroy.

April 20 - Dr. Vargas arrives and we again visit Nichtheroy office.

April 21 - Holiday - Jule and I visit the Jardim Botânico - fully as nice as pictures of it - long avenue of palms to the sheltered Goddess of Palms.  
We go to Marica - Dr. Uchoa, Dr. Vargas and myself.  
Arrive at 8 p.m. Visit post and laboratory.  
Laboratory clean and neat. Malaria work.

April 22. Visit fazenda - sugar cane - one girl of 3 can dance - music from piano (mechanical) and gramophone.

We see sugar cane mill and sugar boilers with alcohol barrels in storehouse, complete workshop.

April 23. Visit malaria work in canoe - fine dinner - inspect brick yard - return to Rio.

~~April 24. Go to Sao Paulo.~~ *see p 13*

April 23. The events of this day were sufficiently interesting to merit a more careful description.

After a night spent on a small cheap cot under a mosquito net, we arose at 6 a.m. - dressed, had coffee at the post and went to the station. No hurries here to catch a train. A large bell at the station which can be heard all over town, rings when the train leaves the nearest station and as the stations are not too frequent nor the trains too fast, there is small excuse for ever missing a train. And then too, on this line all trains are accommodation - first class, second class, baggage, and produce. (This line belongs to a French company). The train rattles in on time and our "boy" - one never handles one's own bag in this country, hunts us up a seat and marks it with our coat and bag. While we look after our farewells (a very important procedure in Brazil) and inspect the train more carefully.

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Our car is the last of 6 coaches - the first class car is placed at the rear because here it is somewhat less exposed to the huge wooden sparks which rain in a regular torrent from the engine and are so destructive to clothing. One half of the car with room for 17 passengers is upholstered with wicker a la American, smoking car and is devoted to first class passengers. The fore half of the car and the two cars ahead are supplied with wooden benches with straight backs for 2nd class passengers. Second class passage costs about 50% of first class. One is convinced however that it is worth the difference after a casual inspection of one's travelling companions and the insanitary condition of the car.

Ahead of the second class cars are the baggage car, a vegetable and produce car and a car devoted to the transport of domestic animals. This car proved to be a veritable barnyard with an intensification of barnyard odors, and sounds. Chickens, geese and turkeys in crates, pigs and goats uncrated and to these were added the three saddle horses for our party fully accoutered. I was much interested in the prices charged for the transport of articles and found it to be very cheap. A charge of 3\$ 300 was made on our 3 horses for perhaps an hour's ride. (This is between 25 -30¢ per capita) when all is ready to go, no "All Aboard" is heard but in its place a shrill blast from a metal whistle of the conductor warns all that the train is going out.

It is a narrow gauge wood burning railroad and the dust and sparks keep one awake and watchful every moment.

Dr. Uchoa <sup>Luiz</sup> remains at Marica and Dr. Andrade <sup>Alvaro</sup> accompanies Dr. Vargas on the train. After an hour we arrive at Itambé where \_\_\_\_\_ meets us. The guard who has come with us leaves on muleback and we walk back up the RR line to inspect some drainage work which is being done. This consists of cleaning and straightening. Returning to Itambé we visit the Tile Factory or Brickplant. This is an industry that is widely scattered over Brazil - all roofs are tiled and wood is used but little in most construction work. This is not because of a shortage of lumber but because of wretched means

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of transportation. At places one sees huge logs being dragged over the impossible roadways by 8 to 12 yoke of oxen. Often times the lumber rots on the ground before cars can be had for its removal. The brick plant was of especial interest to me as the brick yard employees are a sufficiently large element of the population to be grouped separately in the study and report of the incidence of hookworm infection in different regions of Brazil. Although the Brickyard at \_\_\_\_\_ has modern machinery of English make, the employees come in as intimate contact with the raw material of their product as did the ancient Hebrews in Egypt in the days before Moses led them forth.

Shortly, the process is as follows. The clay is dug from the pit by barefooted workmen (all are barefooted workmen) hauled in small cars to the mixer where it is handled by other men before it gets to the mixer. The mixer makes a more or less homogenous mass of the clay. It is then put in a second mixer from which it comes in blocks much like baled hay. These blocks are cut into slices about 4 cm thick by wires and are then transferred to the Press. Here they receive their final form and any printed legend they are to bear - small barefooted boys, 10 to 14 years of age, do much of the work and carry these on their heads to the large drying shed where they remain for sometime before going to the baking ovens. These ovens are huge brick structures and are never allowed to entirely cool off. The men work here at a high temperature for hours at a time.

This inspection was over about 9 a.m. and we then went to our horses and rode out to the lake. This was a long ride, part of it through rather dense forests. From a mount we could see out over the lake with its heavy growth of water vegetation and its thousands of water fowl and the ocean C.A. Lloyd vessel. We rode down and around the lake for some distance and finally stopped nowhere; after repeated signals, the guard who had left us earlier appeared with the news that we would soon have a boat to ride in. The vegetation along the border of the lake was so thick that one wondered how a boat could land. But directly from nowhere almost, came a long log canoe poled by two black bandits. This type of canoe (formed from a log hollowed out with fire or hatchets) is of very uncertain equilibrium and compared to this one, the trickiest canoe I ever saw in the U.S.A. was a row boat for

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safety.

We all clambered in and our bandits pushed off - on the most exciting water trip I have had. We slid almost noiselessly along through the lily pads and other water vegetation for about  $\frac{1}{2}$  kilometer and then suddenly found ourselves in the "Commissao River." It has not always been the Commissao River and has not always been passable to a canoe. Today it is a relatively straight, clear, clean river 4 to 5 meters broad with the banks piled high with refuse and cleaned for a distance of 2 meters on each side. It extends from Lake Bravo, an inland brackish dead lake until very recent times 5 or 6 kilometers to Lake Marica, a tidal lake with salt water. This river, named for the commissao Rockefeller was really constructed by the commissao, as part of the program of draining the municipio of Marica and the making of it into a model health county.

Its course is entirely through swampy land where the men often worked in water and mud up to their armpits. One could see by the refuse along the banks what the work had meant. The vegetation in some areas was predominantly of lily plants and in other places was of a very tall, very heavy flag which is much used by the natives for making sleeping mats and the weaving of baskets etc.

And as we four rode back along the river toward Lake Bravo, one bandit in front with a bamboo pole and one standing in the rear of the canoe with another bamboo pole, one felt as Henry Stanley must have often felt in the wilds of Africa.

One almost expected to see naked savages among the flags - and one almost realized that expectation. From nowhere - it is surprising how things here seem to come from nowhere and just to be where one happens to find them - from nowhere came two very black men along the very uncertain and very rubbery bank of the river - their only way out and a none too certain one - as they apparently well knew. For on their heads - beneath the huge load of flags each carried - was carefully placed his trousers and shoes. And these were of the better dressed type of black for the first one wore a very white shirt - a very black vest and his trousers on his head.

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The captain of our craft - ie. the chief bandit - was tall and of a sinewy build. Barefoot, of course, he wore heavy blue serge trousers, a wide snake skin belt, and a sing sing sweater of red & white stripes. To this was added a long narrow knife in a leather case and a muzzle loading pistol. The other bandit wore little clothing and he had fallen in the water and his cheap rags hung to his skin in a most revealing manner. As we neared Lake Bravo we encountered such thick masses of loose floating lily pads that it was impossible to proceed to the scene of operations. These plants had been cut loose and were drifting out of the lake via Comissão River. The return was over the same course but the bandits were unable to drive the canoe near enough to land without wetting one's feet. So taking his bamboo pole, we mounted the high end of the canoe and vaulted more or less successfully to dry land.

Our bandits received 3\$000 (275¢) for the trip. On our return to Itambé - a very good dinner (breakfast) awaited us and we made the most of it. On the afternoon train Dr. Uchoa joined us and we returned to Rio thoroughly tired.

April 24.

Leave Rio for São Paulo

April 25. Meet Dr. Smillie and Dr. Darling

Dr. Mario *fernambuco*  
Boetsma's - pumpkin pie  
ride to Sierras

April 26. To Sao Simão

April 27. To coffee fazenda  
Coat for Jule

April 28. To Orlandia