phase. By June 1, the urine had lost its foul odor, and the sediment contained much less pus. At this time a slight growth of staphylococcus pyogenes aureus was found in cultures from sediment. Staphylococcus index, .84. The attacks of pain in the back were less frequent than formerly, and of shorter duration. During June the doses of colon vaccine were increased gradually to 150 million without being followed by any clinical negative phases. The patient's general condition was gradually improving. He was no longer depressed nor despondent. Appetite good and strength fairly good. Did considerable work in his garden, bending over without pain or discomfort. Had not been able to do this for past ten years. The doses of colon vaccine during July were increased to 220 million, without unpleasant effects. The indices to both colon and staphylococcus remained constantly well above normal. Aug. 8. T. B. index, 1.06; staphylococcus index, 1.06; and colon index, 1.15. Weight, 160 lb. Feels well and strong. Urine contains many bacteria, but only occasional pus corpuscles.

Since then has had nearly weekly injections of colon vaccine, 150 to 200 million as indicated. At present the urine has no foul odor. Sediment mostly mucus with practically no pus. Cultures show almost no growth of colon and staphylococcus. Indices above normal. Feels better than he has for many years. Occasional twinges of pain in back, but of little severity and short duration. No fever. Is working hard every day. Has gained 11 lb. Is cheerful and happy. In this, as in the other bladder cases, there has been no local treatment.⁴

(To be continued.)

MEXICAN MINING PRACTICE FROM A TUBERCULAR POINT OF VIEW.

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PROBABLY no portion of the United States shows a larger number of cases of tuberculosis per capita of population than does eastern Massachusetts. Unfortunately the medical profession is not immune to its ravages. This article is written not so much with a view to scientific interest as to call the attention of New England medical men unfortunate enough to contract the disease to a section of the continent comparatively unknown to them and practically never thought of when the question of climatic cure in their own cases is considered, a section, which in regard to altitude and climatic conditions, is almost perfect, and in addition offers opportunities for self support, and at times a little more, during the period of time set aside for the cure.

Starting from El Paso, Texas, and running 1,200 miles in a southeasterly direction, the Mexican Central Railroad practically bisects Mexico, running through a great central elevated valley which, beginning with 3,700 feet of altitude at El Paso, continues at about that elevation to Torreon, 500 miles south, then, gradually ascending, reaching its greatest elevation (about 8,000 feet) at Zacatecas, 250 miles further south; then gradually descending slowly to the City of Mexico which possesses an altitude of about 7,000. In this great stretch of country most of the rainfall which is but slight, occurs in the spring and

summer months, with almost complete absence during the rest of the year, exactly as the rainy and dry seasons of our Pacific coast country. There is more rain south of Zacatecas than north, and the watersheds drain mainly in a southerly direction, so that from a short distance below that city to the City of Mexico, the country is in a high state of cultivation.

North of Zacatecas, during July and August, every two or three days there is a heavy shower, lasting, however, only one or two hours. Mists, fogs and drizzles are unknown; it does not rain often but when it does there is no question of identity concerned in the matter. River and creek beds, previously dry, within an hour or two become raging torrents. Then the sun reappears, evaporation is rapid, and within another couple of hours the hills are as dry as if it had not rained for months, and within twenty-four hours the creek beds are dry also. During the rest of the year, the rainfall is limited to scattered showers that can be counted on the fingers of two hands. There are very few streams of sufficient volume and permanence to permit of irrigation; farming areas are rare, cacti, sage, lecheguilla, sotol, guayule and mesquite constituting the usual vegetation on a rocky, sandy soil, giving exactly the appearance of the desert lands in New Mexico and Arizona.

On either side of this elevated plateau, both east and west, are ranges of mountains, rising from heights of from 6,000 to 9,000 or more feet, all the way from El Paso south, and at distances from the railroad varying up to 100 miles. These mountains, suffering from the general lack of rainfall north of Zacatecas, are rough, rocky and usually as bare of vegetation as the valley; a few wild flowers of great beauty are seen, and some of our common golden-rod, but trees are a curiosity. Some of the scenery is magnificent, however. Surface springs are almost unheard of and drinking water for the mines and valley towns comes either from wells or from deep springs in the depths of the mine shafts.

These mountains, though bare of vegetation, are rich in minerals,—silver, lead, copper and occasionally gold,—and enterprising Americans have established numerous camps for mining or smelting, camps varying in population up to several thousand.

Labor is very cheap out here, the average Mexican peon drawing the daily salary of 1½ pesos or 75 cents in United States currency, the companies usually furnishing them "houses"—one-room affairs, occasionally made of adobe (bricks made of mud and straw as in our western country), but more frequently juacals of cactus stalks and dried grass. Not infrequently these "houses" are merely small caves in the hillsides, with a front wall of cactus stalks. In addition to homes, medical care is also furnished them, so that practically every camp of six hundred or more has its own hospital or dispensary with a resident doctor paid by the company.

The "hospital," usually of adobe, contains two or three rooms with whitewashed floors and walls,

⁴ Other cases of cystitis are described among the mixed infections.

usually piped for running water and furnished with a gasoline stove for sterilizing purposes. Examining and operating room tables and furniture may be modern, but are usually of white painted wood and homemade, and though the fixtures at times are crude, the companies are exceedingly liberal in supplying dressing materials and drugs, so that it is possible to do excellent work. Soap and water are as efficacious here as in Boston, and sepsis is no more common than after Boston accident-room treatment. We sew up our compound fractures and practically always union by first intention in these and our other accident cases.

The drug stores are well stocked, the doctor being usually given a free hand in the purchase of drugs and supplies, the companies allowing him the more expensive synthetical proprietary preparations, even plenty of diphtheria antitoxin at \$6.50 gold per 4,000 units. An intelligent Mexican is always given as assistant to do the cleaning, the simple bandaging, to help dispense medicines and to give anesthetics. Tablet medication is used as a rule, as far as possible, but there is always a goodly stock of United States Pharmacopeia elixirs, tinctures and fluid extracts to be used when desired. The doctor is supposed, as a rule, to furnish his own instruments (these are admitted to Mexico duty-free); and usually no provision is made for beds inside the hospital or for trained assistance.

The work is very easy. My office hours are from 8 to 10 A.M. and from 4 to 6 P.M. Accidents are attended to, of course, at any time, but are rarely severe enough to demand attention outside of regular hours. There is excellent practice in minor surgery, most of the injuries being crushes or cuts from falling rock in the mines, and there are usually two or three wounds a day to sew up. Usually the doctor looks after the families of the men also. House visits average here less than three a day, so that he has plenty of leisure time. For outdoor occupation in his leisure hours, he has hunting, prospecting and horseback or mule riding into the hills. One of the surgeon's perquisites is the use of the company's mules whenever he desires. As the roads are merely narrow trails in the mountains, teams and even horses at times are impractical; a mule is far from a bad saddle animal, having an easy gait and unlimited endurance; as most of them are used for hauling ore cars and are not particularly well broken, the beginning of a ride is usually accompanied by considerable excitement for the rider and amusement for the spectators. The hunting, as a rule, is excellent, particularly near artificial or natural tanks. Quail and duck abound and deer are not uncommon.

The reason the doctor has so much time on his hands is the remarkable absence of serious illnesses in these mountains. Tropical fevers seen on the coast are unknown, malaria also, there being no mosquitoes. As the drinking water usually comes from a spring in the mine deep underground, there is little or no typhoid. All of the infectious diseases are rare, usually im-

ported. Measles will at times get a good start but deaths almost never occur. Smallpox breaks out now and then, but the companies back the doctor up on the vaccination question, so that it is of less frequent occurrence. Pneumonia is fairly frequent and very fatal in these high altitudes. Typhus is seen in the cities of Mexico fairly commonly, but almost never in the mining camps. Tuberculosis at times occurs; have seen 2 cases of peritoneal involvement. The pulmonary cases are always kept at work outside, cases developing here run a long course with but little expectoration, taking on usually the "fibroid" form with marked dislocation of the heart. Slight hemorrhages are common.

For childbirth, the midwife presides, never the doctor, unless there is some delay or accident. Perineal tears, and even slight cervical tears, are extremely uncommon as these are all hard-working, muscular women. Malpositions are very unusual. The ordinary call for the doctor is to relieve uterine inertia, which is usually due to delay in rupture of the membranes; his next most frequent call is to Crêde out a delayed placenta. The posture of the parturient woman during the second stage of labor and for delivery is most unusual. The woman kneels on the ground and with hands over her head pulls on a rope attached to the roof, the midwife assisting by downward pressure on the fundus when necessary. It looks like a very sensible method as it adds eight or nine pounds of gravity to the muscular forces; it certainly is an effective method hereabouts. Though the delivery takes place on the bare ground, sepsis is unusual.

As the women all nurse their children until two and three years of age, pediatrics practice is limited to giving $\frac{1}{2}$ gr. calomel tablets on occasions where various "extras" in excessive amounts have been added to the customary "milk diet." Even mild rickets is unusual. Abortions are common, usually syphilitic in etiology. Race suicide is unheard of,—the women are extremely prolific, being mothers at fifteen, whether married or not, usually not. As intercourse is rather promiscuous from our point of view, naturally, as might be expected, venereal diseases are extremely common, but not virulent. Somebody has said that Mexico is the most highly "syphilized" country in the world. I know of no other countries but the good old United States and Mexico, but I can vouch for Mexico in that regard; the late lesions are frequently seen as these people are too ignorant to keep up treatment after the disappearance of a secondary rash or a group of mucous patches. Half of the men of the community have gonorrhea as a chronic condition. In fact a young Mexican is not a man until he has had his "golden drops," as they call it. They consider it more or less of a natural condition and pay no attention to it. Still, stricture and kindred results and pelvic complications in the women but seldom occur. An American venereally inclined, however, in this section of the world, before long looks like a genito-urinary dispensary. Ophthal-

mia neonatorum is common and many nasty corneal scars result.

While the infantile death-rate from inherited syphilis is high, still the women suffer but little from it or from gonorrhea. In a recent house-to-house canvass of thirty-five women questioned, every one had borne children. It is interesting to note that every single one of these women nursed her children at least a year, and of thirty children examined in these houses between the ages of one and three, twenty had been nursed at least two years. The rickets found was limited to one slight case of bow-legs and three barely perceptible rosaries. Dentition, however, in all but three of the children was backward. This makes an interesting comparison with the average civilized community.

One particular set of specialists ought to visit this section of the world,—I mean the “nervemen.” My little camp of 700 or 800 is a perfect clinic of hysteria; I see it in all its phases. It is the bane of a doctor's life, hereabouts; there is scarcely a day that I do not get a call to see a woman having an “*ataqué*,” as they call it, an hysterical fit or convulsion. I see it even in children of nine or ten, probably imitative, as an attack usually attracts most of the neighborhood. Even acute mania lasting two or three days is not uncommon. Much of this mania is not real hysteria, but is caused by smoking a weed, growing abundantly in the hills, called “*marihuana*,” a vice rather common in Mexico. Its use is, of course, vigorously denied. Usually the women are the ones affected, as they all smoke more than the men. I can't blame them as Mexican tobacco is cheap, and far and away superior to the American article. This “*marihuana*” mania is extremely violent for two or three days, requiring enforced restraint; it is accompanied by hallucinations of sight and hearing, cyanosis, rapid, weak pulse with occasional vomiting, followed by exhaustion and mental confusion lasting two or three days longer. I have not seen a death and understand that it is seldom fatal. I give all my hysteria cases the same treatment,—apomorphine subcutaneously, followed later by salts and later by bromides if necessary. If it is “*marihuana*,” it certainly helps; if it is hysteria, the apomorphine usually gives them something to think about for a while. I recently found a new arrival in camp, a man of forty-five, carried here, sick several months with spastic hemiplegia, completely bed-ridden, resisting all handling and even interfering with speech. Suspecting the usual, I told him I could cure him, rubbed his legs and arms with a common gargle, and next day he was working in the mines, making my reputation solid forever in this community. Such “cures” are common.

This, what might be called “hysterical tendency,” strikes the American physician at once. He is surprised and later disgusted at the number of cases of trivialities that come to him, at times ridiculous; such as a woman worried because she thought she was sweating more on one side of her body than the other; another because she felt

like eating dirt,—actual occurrences in my experience; cold hands and feet are other serious diseases seeking remedies; simple headaches and diarrheas and vague pains all over the body, magnified out of all proportion to their actual intensity. Verily, a doctor in Mexican mining practice needs a goodly supply of placebos. If a Mexican coughs once in the morning he is at the hospital door as soon as it opens with a woeful story; if he coughs again that afternoon he is sure he is going to die and is back at the hospital with a pitiful tale of heartrending pains, etc., and that prescription has got to be changed. This is really but slightly exaggerated. This is also seen in surgical work. Mexicans are extremely intolerant to pain. Almost all wound repairs and manipulations have to be done under chloroform, as the pain here again is grossly exaggerated, and a cut finger requires in every instance an extremely careful arm examination to rule out a fracture higher up. Recently I had a man hit on the head by flying rock from a dynamite blast—result a quarter-inch superficial scalp wound; result for me, more noise than a violent American appendicitis, and even after the most careful examination with all kinds of soothing persuasiveness, I was not sure that I did not have a slight skull fracture. Next morning the same wound entirely healed by first intention, but too tender to be touched. It took two normal salt solution tablets to quiet the pain so that he could go to work. In the cleanest wound, with perfect granulations, there is always “inflammation” and inability to sleep the past night, which persists until the last dressing. A Mexican always wants his wound dressed daily and will invent any kind of a story to have it done. A more experienced surgeon put me on to the fact that it is a common superstition amongst them that air is harmful to a wound. Everybody in this camp knows that now and I have a good answer to the daily dressing requests. This same disposition is seen also in their requests to call at a house; usually it is all haste and anxiety and I find a headache or stomach ache the usual illness. When I hear the word “*muriendo*” (dying) I get cautious, as I know there is nothing much wrong. In reply to a call of this kind, or rather three successive calls after earlier refusals to respond, I found an old woman wondering why she was sweating so much; that is a common cause of anxiety amongst the old women. (This was in a camp just outside of El Paso; it was 104° in the shade.) She thought it was something of intense severity. This excitability and exaggeration at times is very perplexing. A man hates to take a long walk to some outlying cave for nothing, and then he hates to neglect a real sick case. To illustrate: A man came up to the hospital one afternoon with the statement that his wife was dying, bleeding from an abortion. He stuck to his story that she was “dying.” I found he was almost right; she was pale, exsanguinated, pulse 140, and blood in a broad stream pouring out of the vagina. Only an immediate curettage saved her life; yet not more

than two weeks later I hustled at utmost speed in answer to a similar call. I found two or three dried drops of blood due to scratching a vulgar eczema of pregnancy. A man's capacity for using bad language increases in direct proportion to the duration of his stay in such company.

There is practically no major surgery unless it be traumatic, as a Mexican will never consent to an operation of election, such as a radical cure of hernia, an abdominal section or tumor removal; even removal of hemorrhoids and circumcisions are refused.

Intestinal parasites are uncommon; have seen only one case each of tenia and *Ascaris lumbricoides*.

Skin diseases are usually impetigos of pediculosis etiology or syphilis. Varicose ulcers are rather unusual.

Adenoids of marked degree and other nasopharyngeal troubles, also ordinary colds and coughs, are not common, probably due to the altitude and extreme atmospheric purity and lack of humidity.

Excessive and prolonged menstruation, so frequent in American women in these rather high altitudes, is not seen amongst the natives.

A man specializing in surgery would be hard put to it to earn a living with these people, as neoplasms are extremely rare, and appendicitis is absolutely unknown.

Aside from the wounds, most of the cases are headaches, constipation, acute and subacute indigestion, in severe cases with considerable rheumatic pains, and hysterical complaints of weakness and general distress practically unlimited in extent and degree. I dispense far more calomel and salts than all other medication combined; next come placebos. A curious fact is that for a purge these people require two and three times the dose for an American. Five grains of calomel followed by salts 3ss does not as a rule give results. For headaches, yielding to popular clamor, I am also compelled to pass out pieces of mustard plaster, three quarters of an inch square called "*chiquiadores*," to be attached to the temples, a treatment supposed to be markedly efficacious.

Directions are usually carried out with extreme scrupulousness, as these people are rather proud of their state of indisposition, and the sicker they are and the more and the nastier the medicine they are getting, the happier they are. As this company pays each injured workman 50 centavos daily while unable to work (25 cents United States currency), which will buy enough beans to keep the family going, it is at times difficult to get the simple hand injuries back to work. My custom is, in even superficial finger cuts, to put on light anterior and posterior splints and to refuse this aid. This enforced rest to the injured part really hastens healing markedly.

Now the above remarks are not exaggerations or a travesty on Mexican character. It must be remembered that the intelligent Mexican of education differs very little from his American neighbor. The above remarks are comments on the type found in a mining camp, not the cities,

the ignorant *peon* or laborer of mixed Spanish and Indian heredity with a prevalence of Indian in the mixture, few of whom can read or write. Their clothes are homemade, as a rule, and the old Biblical sandal has not yet been supplanted by modern footwear; perhaps there are fifty pairs of shoes in the average mining camp of one thousand.

The standard of health in these high altitude camps is exceedingly good. One is surprised at the absence of real sickness in spite of the lack of all hygiene; water, except for drinking purposes, is despised; domestic refuse is simply thrown on the ground in front of the houses. As no special provisions for the purpose are as a rule made and as the ordinary *peon* is decidedly lazy and unrefined, calls of nature are attended to as close to the house as possible. The natives usually sleep on mats of sotol on the ground, with numerous livestock, as dogs, chickens and pigs for company, but their flimsy houses, like those of bamboo in Japan, are chiefly ventilation, and I suppose that has something to do with the question; and here again in this particular camp, the mines are well ventilated and dry, and the men do not work standing in water of various depths as is seen elsewhere; and, above all, in this and most of the other mountain and desert camps there is no surface water, either running or stagnant, to breed mosquitoes; also the intense atmospheric humidity, the constant sunshine and absence of rain, all combine to quickly dry all refuse and sewage, which soon become pulverized and deodorized and unfit for bacterial growth. I inspect the animals when slaughtered, and stop the selling of decayed or green vegetables and fruit, and so keep down the diarrheas; anything like amebic dysentery is unknown here, though diarrheal attacks are still more common than they ought to be.

So much for the medical practice end of the question. A good general knowledge of medicine and surgery is required, and a little tact and common sense, as the doctor does everything from dispensing placebos and good advice to washing impacted cerumen out of ears and pulling teeth.

A knowledge of Spanish is not required by the companies as it can be acquired easily with an interpreter and a dictionary. The interpreter can usually be dispensed with in two or three weeks, and as the vocabulary of these people is limited to three or four hundred words, an American has a good working knowledge of the language in a couple of months.

The salaries ordinarily run from \$100 to \$200 gold a month. In addition my company lets me charge for venereal diseases, for wounds derived from sources outside the mines, as in domestic difficulties and "*cantina*" (saloon) brawls, and for relatives other than the wife and children of the workman. I take cash when I can get it. Still it is impossible in modern times to draw water or blood out of rock, also money out of a man on 75 cents or \$1.00 a day. Some companies will deduct a dollar or two out of the salary every

week on this bill. In that case, after the first deduction, Mr. Mexican frequently silently folds his tent in the night, and with his simple and not extensive belongings on the back of a burro, and his family on foot wends his way to a neighboring camp, if he does not possess sufficient train fare. False names and other ruses are resorted to frequently, to avoid this payment. I saw a laborer hit over the head with a beer bottle one afternoon. As I was putting six stitches in his cheek, next morning, he told a pitiful tale of how he had been unfortunate enough to be too near a dynamite blast at the time of its explosion. The desire to beat a doctor seems to be a universal psychological *status* not limited to particular lands or people.

I get fifty cents gold for an office visit, \$1 for a house visit, double for venereal visits, \$2 for a house visit or each visit to a confinement case, \$5 to \$15 for stab or gunshot wounds or 50 cents a stitch for superficial wounds. That is what I charge. The proportion that I get is very similar in extent to that of the average doctor north of the Rio Grande. It amounts to enough in a week to about meet living expenses, leaving all the salary "velvet," so to speak. Occasionally a good fee is picked up by a visit to a neighboring ranch or small town.

A furnished house is usually given to the doctor, rent free, if married, otherwise the best room in the settlement, that is, a house or room furnished from the point of view of a mining camp, which means, clothes closets, desks, tables, washstands and chairs, and even at times beds, usually all built by the mine carpenter. Still, varnish is not essential to happiness, and canvas seats and backs in chairs, while they do not appeal to esthetic sensibilities, are yet far from uncomfortable. These rooms or houses are frequently lit by electricity, generated in the power house for working the mine hoists, etc. Another not uncommon luxury is a shower bath with hot water derived from the air-compressing machines for ventilating the mines.

As the ordinary Texas, Arizona or Mexican cow can live and get fat off the desert vegetation and scenery which is plentiful hereabouts, and sheep and goats also eke out an existence, fresh meat is always plentiful and cheap. Eggs are cheap and common articles of diet. But when you get chicken, you may be sure it is some erstwhile defeated champion, an actual victim of its adversary in the gladiatorial ring in last Sunday's cock-fight, or one whose neck has been quickly and angrily wrung by its owner for showing the white feather and running away in a fight, thus just as effectually transferring most of the aforesaid owner's past week's salary or savings to the pockets of his more successful competitor. (In these fights, the cocks wear saber-shaped razor-edged knives for gaffs, at least three inches long, and the contests are quick and bloody.) No other fowl is seen in these camps.

Vegetables and fruits are plentiful, usually brought by train or on the backs of burros from some irrigated valley. Cow's milk is obtainable

but not common as the Mexicans prefer goat's milk, though I cannot see why, as it is rather "powerful" to the uneducated taste.

Usually the single Americans club together, employ a Chinese cook and eat in the American style. Personally, I live with an intelligent Mexican family, \$20 a month, and the food is really excellent, about on a par with what that sum would bring in a New Hampshire country village, with far greater variety as there are numerous very palatable vegetables and condiments grown out here, unknown north of the Rio Grande. It is a standard joke among the Americans that to eat with a Mexican family, a man, to be comfortable, ought to take a fire extinguisher along with him, owing to the amount of Chile pepper in general use. Still, as a matter of fact, though many of their dishes possess considerable piquancy from this cause, others, such as soups, rice and meats, are very much as an American gets at home, and though most of their things are cooked with a slight flavor of cheese or onions or both, they are not so bad as it might seem. Butter is seldom used. Their bread is the native *tortilla*, a round, flat affair, the size of an ordinary New England griddlecake, baked, unleavened, from a flour derived from pounding moistened corn in stone mortars, and is excellent. There is practically always enough distilled water from the power plant or assay office for the use of the Americans. Ice is unknown, in some camps, but as water kept in the shade in an "*oyah*" (a porous earthen jug) is always delightfully cool it is not missed.

Personal service is also cheap. I get my washing done and my room cleaned daily for the munificent sum of \$5 a month Mexican (\$2.50 United States currency) plus soap. A "maid of all work" for a family draws from \$9 to \$15 (Mex.) salary a month.

In this southern latitude, as might be expected in the central valley, the heat in summer is intense, but in these mountain camps this heat is absent and the climate is simply superb. In summer, in the daytime, except at noon, a coat is just necessary. At 6,000 feet altitude, in my camp 500 miles south of El Paso, in sleeping outdoors, I use three blankets every night and usually have to put on a bath robe by morning (written in early September). Such marked drops in temperature are the rule in all high altitudes where the rainfall and atmospheric humidity for months are practically *nihil*. To my mind this is a distinct advantage. The tonic effect of cold in the treatment of pulmonary tuberculosis has long been recognized. There is nothing more exhilarating than to be wakened by the rising sun in these mountains; one can feel the convulsive death struggles of disgusted, disappointed bacilli. Being so far south, the winters are mild, usually really cold only at night, but a stove fire at times is required, as there are one or two freezes, but the lack of humidity again acts to advantage in lessening the perception to this cold. Most of the natives south of Chihuahua have never seen snow or ice.

I have tried ranching in west Texas, auto-biling in New Mexico and Arizona (where, by the way, the natural hard clay roads are splendid) and can speak a little from experience. Climat-ically all are good. But in comparison with the living on an average ranch with its constant "sow-belly" (bacon), frijol beans, canned peaches, with sickly coffee and condensed milk for beverage, living in a Mexican mining camp, in spite of its lonesomeness, is almost heaven. By the way, let me give New England doctors a bit of advice on that point which I consider of practical importance. I have been on probably one hundred ranches in west Texas, New Mexico and Arizona, and know from experience. Never send a case of tuberculosis to one of these ranches, unless the owner has his family living there with him. Except during round-up season, such a man, "baching it" alone lives with one or two Mexican laborers only, and it is rather expensive to kill beef for that number, and moreover it requires too much labor for the average ranchman, usually the laziest character on earth, to milk cows for himself. He simply will not do it, and the above-mentioned diet is what your case will get. These things rather pall on a "lunger." I have had condensed milk and Kansas oleomargarine (called butter) day in and day out on such a ranch with 3,000 cattle within a radius of four miles, and this ranch owner was wealthy, an old New Englander, and living on the ranch at that time. But when the wife and children are there, chickens are raised, there is usually a small irrigated garden, and several cows are kept up near the ranch house and fed, and there is absolutely nothing finer than the rich cream and butter, fresh eggs and milk, and home cooking, gotten on such a ranch. This, with long horseback rides over the broad open prairies which in that section of the world are three and four thousand feet in elevation, certainly leads to innumerable cures.

The only advantage a mining camp has over such a ranch, is the fact that it permits of the earning of a living during the cure, a fact which may be absolutely essential in some instances, and of distinct advantage in others more fortunate financially, as occupation and something to do undoubtedly diminishes not only introspection and despondency over material loss and disappointed ambition, but also worry as to present and future conditions of health. This is a point of real therapeutic value, as this enforced idleness with its ensuing mental state has been one of the greatest drawbacks to sanitarium treatment, judging from my conversations with numerous victims with whom I have come into contact during my own travels in search of health. Another advantage of this position is the fact that the physician can regulate the amount and character of his physical exercise, as his condition requires, taking almost a complete rest cure if indications demand this, as four or five hours' work sitting down in a hospital is not hard work, and the assistant can do all the manual labor.

Of course it is lonesome, but so is a ranch; still the attractions of a city are not indicated in

the cure of a consumptive — those things he has to forego. Also every camp has a few Americans for company, more than are to be seen on a ranch except during round-up season. The *peons* look on the doctor as a person of considerable importance, will do him all sorts of little favors. At their *fiestas* he is always given a seat on the rostrum with the other notables, and they consider it an honor when he will attend one of their dances or social functions, always giving him the seat of honor. All he has to do, to maintain their respect, is to treat them decently, humor their little peculiarities, act with a little tact, not get drunk except on *fiesta* days, which come often enough for the purpose, when if he doesn't he is apt to be in a lonesome condition, and above all, let their women alone, — that is without first consulting the men.

In the larger cities for an occasional visit, there are always large American colonies, usually with a good club where he is welcome. Almost all have Masonic Lodges for those interested. The business districts and dealings and social amusements differ in no way from what is seen in American cities of similar size. English is very generally spoken, daily newspapers printed in English being published in the larger cities.

Consumptives other than physicians also can usually find openings for healthful if not heavily remunerative positions, with prospecting and geological outfits.

These medical positions can usually be obtained by correspondence with the better known San Antonio and El Paso physicians. Changes are frequent, as naturally men with any ambition as soon as cured, or sufficient capital is obtained, drift into smelter or city practice which pays better. I know very little of conditions of city practice in Mexico. Most American physicians there are primarily attracted by connections with a smelter or railroad.

I trust this article will be the means of offering practical assistance to some unfortunate, afflicted practitioner. It is only one road for a cure, others exist, possibly better, but it is an avenue trod by many previously, with excellent results, and but little known in New England. No examination or registration fee is required for this mining practice, and many excellent physicians take these positions. I found in a camp of less than one hundred in Arizona, an ex-chief surgeon of one of the largest railroads in the United States.

Certainly the living is better in the big Arizona mining camps like Bisbee and Tombstone. Colorado I am unfamiliar with. But the climate here is far superior to that of Arizona, especially in summer; the days here seldom reach as high as 80° at noon, and the nights are always cold. Just before coming here I spent several weeks in Arizona, and on several occasions saw the thermometer in Bisbee last summer 103°-4° or 5°, in the shade, and it is extremely dusty there. On one occasion, at the Naco Water Works, about ten miles south of Bisbee in the desert, but only 500 feet lower, I saw it 130° in the sun. Moreover,

greater competition for positions there makes the chances for material existence far better here. On the whole, a physician with phthisis would have a hard time to find a better place for his purpose than a Mexican mountain mining camp.

CHRONIC DYSPEPSIA.*

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THE members of the Meigs Medical Society may think strange of the title of my paper, and my only apology is the opportunity I have had of studying the pathology of the living. That the pathology of the living has made startling revelations in the diagnosis and treatment of many intra-abdominal ailments which have, as their ordinary symptoms, those formerly designated chronic dyspepsia, chronic indigestion, etc., we now know, and are forced to admit. It will be my purpose this evening to show how we physicians have in the past been deceived, whilst at the same time we have been deceiving our patients.

The term "chronic dyspepsia," as used in present day medicine, denotes a symptom-complex which is usually expressive of distinct organic disease within the abdomen. It is a term that was coined sometime in the eighteenth or nineteenth century, before abdominal surgery was developed, and had its equivalent in the Latin phrase "*non cognosco*" which, as you are aware, means "I do not know," "I am not acquainted with," "I do not recognize." In those days, if a patient complained of changed appetite, gastric distention with flatulence, heartburn and acid eructations, constipation and pain after eating, with or without vomiting, and if these symptoms were not acute, his case was diagnosed "chronic dyspepsia," with the provisional diagnosis, provided the pain was very marked, of "neuralgia of the stomach." The patient was advised not to eat fried food or plum pudding; and was prescribed a quassia cup, and other stomachics, as golden seal, gentian, or boneset; or digestants, as saccharated pepsin, pancreatin or papain. After extended treatment perhaps improvement ensued, and the "chronic dyspepsia" or "neuralgia of the stomach" was recorded as cured. But, as I shall show you, the patient was not cured; his ailment, in all probability, was merely restored to a condition of latency. If, later on in the disease, he vomited a quart of bright blood, the diagnosis of gastric ulcer was established; if he became jaundiced, gallstones were suspected; and if he became pale and weak, and lost flesh, and a lump was found in the abdomen, malignancy was diagnosed. If the case came to autopsy, careful pathological measurements and weights were made, minute notes dictated and the corpse sewn up and given over to the embalmer.

With the development of abdominal surgery came the dawn of a new era. Important obser-

vations were made at the operating table, and a new branch of medicine was developed. It was that of the pathology of the living. I can well recall the time when this new science was offered to the profession. It created commotion as did Virchow's announcement of cellular pathology. Many doubting brethren asked me, "What is this living pathology?" "How can there be any living pathology?" This latter question suggested to me that my questioner could associate pathology only with the post-mortem table. I explained to him that pathology is the science of disease, and that living pathology is the science of disease in the living. He caught the idea, and went forth thinking.

Living pathology, then, is the science of disease in the living. It immediately began to minimize the value of carefully taken post-mortem protocols. It explained symptoms, signs and the natural history of disease; it developed diagnosis and brought operative treatment earlier into people's lives. By these means it has prevented years of suffering, and, like the fender on a tram-car, has snatched patients from the jaws of death, thereby helping to approximate the average span of life more nearly to the three-score-and-ten mark.

To my mind, no better illustration exists than that offered by disease of the skin. Here the character and extent of the disease, including the size, color, consistency, sensitiveness and amount of congestion and exudate in the lesion, may all be observed, and the course of the disease followed with the eye, and the effect of treatment directly seen. Who would prefer to study skin diseases after death? What is the comparative value of the two methods? Two decades ago, it was found that abdominal disease could be studied by the same direct method, the only hindrance being the opacity of the abdominal wall, an obstacle that was soon overcome. Abdominal pathological lesions in their living state, including size, color, consistency, amount of inflammation and infection, and their extent and in all stages, were studied and compared to the disturbance previously caused the patient by the disease. Further questions, suggested by the operative findings, were put to the patient during his post-operative convalescence. In this way symptoms and signs, vague or frank, were explained, and their cause put upon a firm pathologico-anatomical basis. In this way the term "chronic dyspepsia" gradually became altered in its sense. Previously it had been bottomless, and for that reason created in the mind of the practitioner the idea that there was a vague indefinite something wrong in the abdomen, that, in fact, the stomach was "out of kilter." This something he had to call something to satisfy the laity, so he called it "a functional disorder," or "biliousness," or "torpidity of the liver," and finally "chronic dyspepsia," — all of which meant "*non cognosco*." Now, having been put upon the firm foundation of living pathology, the term "chronic dyspepsia" means "*cognosco*," "I know," "I am acquainted with," "I recognize," that there

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