

SLAVES OF MAHOGANY CAMPS

Methods of Working the Vast Unexplored Forests of Guatemala.

SLAVE LABOR MAKES LARGE DIVIDENDS

Valuable Timbers Concession Secured by Americans—Mourful Appeal of Bondsmen Unfolded on Floating Logs.

(Copyright, 1901, by Thomas R. Dawley, Jr.)

The announcement that a lumber company with headquarters at Toluca, Mexico, has paid the Guatemalan government \$125,000 in national currency for a five years' concession to cut mahogany and cedar timber on the banks of four rivers in that country calls attention to an unknown little corner of the world. The concession carries with it on its face the privilege of introducing the necessary labor, prohibiting the importation of Chinese. This means that the timber will be handled by slave labor, for slavery, though not a recognized institution, still exists there, to all intents and purposes.

The region of the four rivers is a vast and unexplored wilderness; the wilderness through which Cortez struggled on his way to Honduras after the conquest of Mexico, there to hunt the Aztec king, Guatemotzin, last of the Montezumas. This tract is one mass of tangled, tropical forests. Twenty years ago the school geographers of Guatemala described it as a country inhabited by a wild, independent tribe of Indians, who recognized no authority but that of their chiefs. In the early part of 1900 the writer journeyed through this forest, traveling ten days without seeing other human face than that of his mestizo servant. In the time of Cortez the country is described by his soldier historian, Bernal Diaz, as thickly populated. What has become of this population is a mystery. For the evidence of its existence still remains in ruined edifices, temples and idols scattered through the forests, now grown over with great trees.

Far up into Mexico the forest extends and the pushing Mexican lumbermen, a different type from the worthless "Greaser" of the northern frontier, penetrated the woodland wherever they could find streams to carry the lumber down, and established their camps. Presently they overran the frontier and brought on war in 1854, and again in 1895, war which in each instance pushed back the Guatemalan frontier. The first timber company that went into mahogany cutting on an extensive scale there got a concession from the Guatemalan government and struck in through the dense forest until they reached a large and placid stream, the River de la Passion, about which the valuable trees grew thick. To get the lumber out was the problem. Fashioning a canoe the explorers set out down the stream, which presently became narrow and swift, and rushed through a gorge to dash over a rock shelf in a seething torrent. Only by throwing themselves from the speeding canoe did the men escape. A long time after the canoe was found on the gulf beach near the mouth of the river. If a boat could find its way to sea water, so could mahogany tree trunks. Camps were soon established there. Then came the question of labor.

Kidnaping the Peons.

It was not to be hoped that the sun-loving, merry-hearted Mexican peons could be tempted from the social life of the villages and cities into the depths of the gloomy forest at any wages. Some other method must be found. The cunning Monteros, as the mahogany hunters are called, devised a means of enslaving—the peons. By the Mexican system a man engaged for certain labor and prepaid is compelled to work out his wages. In any Mexican town it is easy to pick up peons, particularly at a festa time, who will drink a little and be ready to enter into any kind of a contract for the sake of money for more drink. With the amount advanced they buy a little clothing and a great deal of mecal liquor and have a round of pleas-

ure, at the end of which time they find their money all gone and a squad of soldiers waiting to escort them to their respective camps. By this means the mahogany cutters found they were able to extend their camps in the vast wilderness of both Chiapas and Guatemala, and there virtually set up a little principality of their own. It is precisely the same system of slavery for debt devised by the stockade owners of Anderson county, South Carolina. Patches of the forest are now cleared and planted in corn and the peons are fed on this corn, which is first boiled in a weak solution of perch water made from ashes and then ground between two stones. An occasional wild bear or other game from the forest is their only change of food.

Few of the peons realize the fate before them, because few return to tell of it. It is a long journey to the Monteros' camp, a journey over a trail where every bit of food consumed on the way must be carried, and sometimes water, too, and the journey is one of days in a forest abounding in wild beasts. By the Mexican law the peon could not be detained any longer than necessary for him to work out his indebtedness. Once having drawn \$5 from the peon after he is once in the Monteros' camp, his miserably insufficient food is credited to him at prices so high that he can hardly avoid running further into debt. Moreover, the Montero practices a system of treble entry bookkeeping, by which method the peon's debt is constantly increasing instead of diminishing.

As an illustration of this system a story is told of a peon who, endeavoring to keep track of his account, provided himself with a little memorandum book, in which he recorded the Montero to mark down his indebtedness. Once having drawn \$5 from the Montero he discovered that he was charged with \$15. He at once took the book to his master and required an explanation. The Montero pretended to fly into a terrible rage at the stupidity of the peon and after swearing at him roundly, exclaimed: "Don't you see, you fool, there were five dollars you asked me for, and \$5 which I gave you, and \$5 to be charged to your account, and don't three fives make fifteen? Get out of here and go to work."

And they say that between the intervals of swinging his axe that peon is still trying to find out how three fives make fifteen when he gets but one of them.

Treatment of the Slaves.

Women and even young girls are taken into this slavery and in the Mexican towns there are ugly tales of kidnaping told. The discipline of the camps is bitter and cruel. For any insubordination there is the lash and the prison house, and any request for payment or release is considered an insubordination. In some camps the miserable creatures are chained together to prevent their attempting to escape, though their hope of ever making their way through that wild and trackless forest to any village, without food or arms, would be slight indeed. Should they reach civilization it would be only to be arrested as fugitives, under the peon law, and imprisoned, or, worse still, sent back. Tales are told of the death rate in some of the camps that are almost incredible. Once, while lost in the forest, the writer ran across one of these slave settlements. At a thatched cabin near the bank of a large river, which proved to be the Osumacinta, he applied for something to eat. A table was brought out of the cabin and a couple of Indians bustled around, whispering together by turns. Finally a girl came out with food and said in Spanish: "You are Don Tomas, are you not? You used to live in Coban, and I carried water for you, many the time." "And I used to sell you wood," said one of the Indians in a mournful voice, approaching shyly. The writer's back, his mouth filled with twisted tortilla and egg, gazing in amazement. "How did you get down here so far away from your own country?" he asked. "Miguel Taruca brought us here," said the girl in a frightened tone. "He brought us here just after the feast of San Domingo."

Lured to the Slaves' Den.

Then the Indian told how he had been kidnaped in his native town in the Cordillera with a view of his country people by the Mexican mahogany cutter, Miguel Taruca, who, promising them big wages, had advanced them \$10 each for the celebration of the San Domingo feast, had subsequently lured them into the forest farther and farther away from home till now in Mexico, on the banks of the great river, they were badly treated and ill fed, with no prospect of ever getting back to their homes. They never received any money and once when one of their number made request for a settlement he was put in the calaboose and threatened with a long term of imprisonment if he did not at once agree to go back to camp and work out his indebtedness, which was represented as a considerable amount.

Food and means of escape were offered to this man later, but he, however, of being able to get away, and, moreover, would not leave the girl and his fellow. Miguel Taruca, by the way, shot a man shortly after, was captured, escaped and made his way into another province, where he was imprisoned for cutting mahogany without a license on the great river. This nearly led to another war between Mexico and Guatemala. Whatever became of his peons the writer has been unable to find out.

After the mahogany trunks are cut and trimmed by the slaves they are stamped with name and date and set afloat in the river. Some of the logs take as long as four years to make the trip; others never are found. Nevertheless, the traffic is highly profitable, as the Monteros pay no wages, and the expense of keeping the peons alive on corn is very small. Occasionally a log drifts down the river with some poor peon's message of appeal for release from bondage nailed to its surface. Surely there are in the annals of all time no more mournful documents than these bits of scrawled cloth entrusted to the wild waters of the River de la Passion to be found, months or perhaps years afterward by some wanderer on the sea beach.

TURK WAS MUCH TOO SLOW.

Irishman kept the Money the Magician Took from the Bundle.

Ben Hassan Ramido, known to the patrons of the saloons on Third avenue, New York, as "the wonderful Turk" because of the many slick tricks he is capable of doing, is now wondering how he can recover \$5 which he lost Saturday night while doing a trick.

Shortly after 9 o'clock, entered the New York Times, Ramido related the saloon of Jaeger Bros., on the northeast corner of Third and Third avenue, and proceeded to do tricks. Among his customers was an Irishman who held under his arm a bundle containing some new shirts and collars.

"Say," said the Turk, "I'll take \$5 out of your pocket, or I'll do better than that—I'll take it out of that bundle."

"I don't believe you can do either," replied the Irishman.

The Turk said he could and took the bundle in his hands. After a few manipulations he surprised the Irishman and the occupants of the place by holding a new shirt in his hand. The Irishman demanded the money, claiming it was his property. The Turk refused to hand it over, claiming it was his and not the Irishman's. The latter grabbed the bundle and with the money and started out of the door toward the Thirty-fourth street ferry for Long Island City, followed by the Turk and several of the men in the place. It happened that a boat was just pulling out of the slip as the Irishman jumped aboard and was off.

Ramido was furious. He returned to the saloon and demanded from one of the members of the bar the shirt which had been robbed in the saloon. Jaeger said that he did not have to give the Turk the money, alleging the man had been relieved of the money through his own foolishness. Sergeant Raynor of the East Fifth street station was made acquainted with the matter, and he thought they would have to settle the difficulty between themselves.

kidnaped in his native town in the Cordillera with a view of his country people by the Mexican mahogany cutter, Miguel Taruca, who, promising them big wages, had advanced them \$10 each for the celebration of the San Domingo feast, had subsequently lured them into the forest farther and farther away from home till now in Mexico, on the banks of the great river, they were badly treated and ill fed, with no prospect of ever getting back to their homes. They never received any money and once when one of their number made request for a settlement he was put in the calaboose and threatened with a long term of imprisonment if he did not at once agree to go back to camp and work out his indebtedness, which was represented as a considerable amount.

Food and means of escape were offered to this man later, but he, however, of being able to get away, and, moreover, would not leave the girl and his fellow. Miguel Taruca, by the way, shot a man shortly after, was captured, escaped and made his way into another province, where he was imprisoned for cutting mahogany without a license on the great river. This nearly led to another war between Mexico and Guatemala. Whatever became of his peons the writer has been unable to find out.

After the mahogany trunks are cut and trimmed by the slaves they are stamped with name and date and set afloat in the river. Some of the logs take as long as four years to make the trip; others never are found. Nevertheless, the traffic is highly profitable, as the Monteros pay no wages, and the expense of keeping the peons alive on corn is very small. Occasionally a log drifts down the river with some poor peon's message of appeal for release from bondage nailed to its surface. Surely there are in the annals of all time no more mournful documents than these bits of scrawled cloth entrusted to the wild waters of the River de la Passion to be found, months or perhaps years afterward by some wanderer on the sea beach.

TURK WAS MUCH TOO SLOW.

Irishman kept the Money the Magician Took from the Bundle.

Ben Hassan Ramido, known to the patrons of the saloons on Third avenue, New York, as "the wonderful Turk" because of the many slick tricks he is capable of doing, is now wondering how he can recover \$5 which he lost Saturday night while doing a trick.

Shortly after 9 o'clock, entered the New York Times, Ramido related the saloon of Jaeger Bros., on the northeast corner of Third and Third avenue, and proceeded to do tricks. Among his customers was an Irishman who held under his arm a bundle containing some new shirts and collars.

"Say," said the Turk, "I'll take \$5 out of your pocket, or I'll do better than that—I'll take it out of that bundle."

"I don't believe you can do either," replied the Irishman.

The Turk said he could and took the bundle in his hands. After a few manipulations he surprised the Irishman and the occupants of the place by holding a new shirt in his hand. The Irishman demanded the money, claiming it was his property. The Turk refused to hand it over, claiming it was his and not the Irishman's. The latter grabbed the bundle and with the money and started out of the door toward the Thirty-fourth street ferry for Long Island City, followed by the Turk and several of the men in the place. It happened that a boat was just pulling out of the slip as the Irishman jumped aboard and was off.

Ramido was furious. He returned to the saloon and demanded from one of the members of the bar the shirt which had been robbed in the saloon. Jaeger said that he did not have to give the Turk the money, alleging the man had been relieved of the money through his own foolishness. Sergeant Raynor of the East Fifth street station was made acquainted with the matter, and he thought they would have to settle the difficulty between themselves.

Table and Kitchen

Practical Suggestions About Food and the Preparations of it.

Daily Menu. THURSDAY. BREAKFAST. Fruit. Cereal. Cream. Bacon. Hashed Liver on Toast. Rolls. Stuffed Potatoes. Coffee. LUNCH. Deviled Crabs. Tomato Mayonnaise. Rolls. DINNER. Tomato Soup. Green Peas. Broiled Chops. New Turnips. Strawberry Shortcake. Cream. Coffee.

FRIDAY. BREAKFAST. Fruit. Cereal. Cream. Potatoes. Shirred Eggs. Broiled Potatoes. Corn Muffins. Coffee. LUNCH. Strawberry Pancakes. Cocoa. DINNER. Cream. Mashed Potatoes. Baked Shad. Mashed Potatoes. Spinach. Chicken. Cucumber Salad. Cake. Coffee.

SATURDAY. BREAKFAST. Fruit. Cereal. Cream. Broiled Liver. Broiled Potatoes. Rolls. Coffee. LUNCH. Cold Tongue. Chicken. Cottage Cheese. Fruit Sandwiches. Tea. DINNER. Little Chicken. Mashed Potatoes. Rhubarb Pie. Coffee.

SUNDAY. BREAKFAST. Fruit. Cereal. Cream. Panned Fish. Cucumbers. Potatoes Hashed in Cream. Waffles. Maple Syrup. Coffee. DINNER. Grilled Spring Chickens. Soup. Rice Croquettes. Fresh Peas. Lettuce Salad. Caramel Ice Cream. Strawberries. Cake. SUPPER. Sweetbread and Cucumber Salad. Cheese Sandwiches. Fruit. Tea. Cake.

DELICIOUS ICED PUDDINGS.

Combinations of Soothing Delicacies for the Summer Months.

These are often a compound of ice cream mixtures with fruit, nuts, cocoanut, rice, tapioca, etc., but they may be made without the addition of the cream mixture and really be what their name indicates, a frozen, instead of a baked or steamed pudding. Of course, in freezing no flour is used except in thickening the custard preparatory to freezing. The simplest preparation of the kind is the plain, frozen custard pudding, which frequently masquerades for ice cream.

These puddings may be frozen like ice cream and packed in ice to ripen, or made without stirring and packed in cake-lined molds, which are packed in ice and salt, allowing sufficient length of time for them to harden—four to six hours, according to the materials used. A sponge-cake is often hollowed out and filled with the pudding mixture and then closely covered, packed and frozen. Serve with a decoration of whipped cream and candied fruit.

A Plain Frozen Pudding—Put one pint of milk and one pint of cream over the fire in a double boiler. Beat the yolks of six eggs until light with one and one-half cups of sugar. When milk is scalded pour it gradually into the egg and sugar and stir until liquid, then return to the double boiler and stir and cook until it will coat the blade of a knife or spoon. Take from the fire, add a teaspoonful of vanilla and set aside to cool. Then turn into a freezer and pack in salt and ice; stir until it begins to thicken and then add a cupful of currants or chopped nuts. Let stand, closely covered, four hours. When ready to serve let the mold stand on a flat surface a few minutes before turning out to locate the pudding. Turn out, cover with whipped cream, decorate with strawberries and serve at once.

Frozen Strawberry Pudding—Whip one pint of sweet double cream until thick. Put in a quart of cold water, add a quart of crushed strawberries and fill a pudding mold having a tube in the center; pack in salt and ice; cover with a heavy blanket or old carpet and stand in a cool place for four or five hours, removing ice and salt if necessary. When ready to serve turn out and fill the hollow center with sweetened berries.

Iced Rice Pudding—Cover half a cupful of rice with a quart of cold water. When the water begins to boil drain it off and cover the rice with one quart of milk; cook until the rice is tender, then remove from the fire and press through a sieve. Add a pint of cream to the rice mixture, two cupfuls of sugar and the beaten yolks of six eggs. Return to the fire and stir and cook for a few minutes until it begins to thicken. Take from the fire, add a tablespoonful of vanilla and set aside to cool. When cold, turn into a freezer and freeze same as for ice cream. When frozen remove the dasher, stir down; add a pint of whipped cream; cover, repack and set aside for two hours. Turn out and serve with a compote of oranges, strawberries or apricots heaped around the base.

Frozen Chocolate Pudding—Mix half a cupful of sugar with six ounces of grated chocolate; pour over this one cupful of boiling water and stir until thick and smooth, then let it get cold; stir it into three cupfuls of whipped cream; turn this into a fancy mold and pack in ice and salt. Let stand for four hours; serve with strawberry sauce.

Iced Cabinet Pudding—Wet a melon mold with cold water, sprinkle the bottom and sides thickly with currants and then arrange dry fingers, macaroons and cocoanuts in the mold. Sprinkle these over with currants. Continue in this way until you have used one dozen macaroons, one dozen and a half dozen lady fingers, one dozen cocoanut cakes and a cupful of currants. Put three cupfuls of milk in a double boiler. Beat four eggs with half a cupful of sugar. When the milk is steaming hot add third of a package of gelatine softened in half a cupful of milk. Stir until dissolved, then add the eggs and sugar and stir and cook five minutes. Remove from the fire, add a seasoning of salt and a teaspoonful of vanilla or two tablespoonfuls of wine. Pour this sauce while hot, gradually over the cake and fruit, allowing it to soak into the cake. Let get perfectly cold. Cover the mold with a wet cloth. Remove the paper and put on the cover. Then pack in ice and salt and let stand for six hours, re-

To Prepare for a Feast. Uneeda Jinjer Wayfer. Whether it's a formal affair, or a convivial nibble, or a lonely lunch, they're always right. You can lay in a store of a few boxes or more, they'll always be fresh as if just from the store. NATIONAL BISCUIT COMPANY. Don't forget Uneeda Biscuit.

newing ice and salt if necessary. Serve with quince or apricot sauce. Frozen Pudding a la Duchesse—Put a pint of cream in a double boiler. Beat the yolks of six eggs until very light. Pour the hot cream over this and stir until the sugar is dissolved, then return to double boiler and cook and stir until it begins to thicken. Take from the fire, add another pint of cream, a pinch of salt and a tablespoonful of vanilla. Chill and freeze. Then pack into a bombe mold, leaving a hollow center. Fill this with strawberry water ice. Cover over with the frozen pudding and finish same as other puddings. Let stand for four hours. Serve with following sauce: Cover a tablespoon of gelatine with cold water and soak until tender—about ten minutes. Put a pint of cream in a farina boiler to heat. Beat together until light the yolks of two eggs and two tablespoonfuls of powdered sugar. Pour the hot cream over this and stir until smooth, then return to double boiler and stir until it thickens. Remove from the fire and add a tablespoonful of vanilla, or, if you use liquor, a small glass of good sherry or brandy.

Nesle's Pudding—This is the king of frozen puddings and was named for a famous Russian statesman. Shell a pint of large chestnuts, cover with boiling water and cook until tender, from twenty to thirty minutes, then peel off the brown skin and pound the chestnuts to a paste, moistening with a little cream. Add a pinch of salt. Rub this paste through a sieve. Have ready a pint of boiled custard and add to the chestnut paste. Add a pint of blanched almonds, two cupfuls of candied fruits chopped fine and a teaspoonful of vanilla extract or a glass of maraschino. Place in the freezer and work well. When frozen stir in a pint of whipped cream and to serve turn out and decorate around the base with candied fruits.

MINISTERIAL MILES. A young man and a young woman who were visiting a town in Michigan passed an engine house which had a tower, making it look like a church. "I wonder what church that is?" she inquired. To which he replied, after reading the sign, "Deluge, No. 3." "I guess it must be the Third Baptist."

A certain English bishop, as he was going about his diocese, asked the porter of a lunatic asylum how a chaplain whom he (the bishop) had lately appointed was getting on. "Oh, my lord," said the man, "his preaching is most successful. The idiots enjoys it particler."

A clergyman once preached a sermon on the fate of the wicked. Meeting soon after with the bishop, he was known for his gossipping propensities, he said: "I hope my sermon has borne fruit. You heard what I said about the place where there shall be wailing and gnashing of teeth?" "Well, as to that," answered the dame, "if I as anything to say, it is this: let them gnash their teeth as has 'em—'ain't!"

A few years ago a committee of angry low church men visited the bishop of Oxford, the late Dr. Stubbs, to complain of various ritualistic excesses of their rector. They were especially excited over the fact that the parson wore a red hood, instead of the blue one to which he was entitled as a graduate of Trinity college, Dublin. "He carries a lie on his back!" they cried. As a matter of fact, the accused priest had an Oxford degree, as well as an Irish one. The bishop did not argue the matter. "A lie," said he, with a comical smile, "is a hard word. Suppose you call it a falsehood." And the committee laughed and withdrew.

PAIR GRADUATES IN MEDICINE. Hindoo Princess and a Russian Belle. The Woman's Medical college of Pennsylvania will confer the degree of M. D. upon two graduates from across the seas next month. For the first time in the history of the institution the entire senior class, which this year has thirty-seven members, has passed the final examinations successfully and all the young women will receive the degree of doctor of medicine. The chief interest of the class centers in

its member from far-away India, Miss Dora Chatterjee, who is the third native Hindoo woman to be graduated from the college. Miss Chatterjee is of the highest Hindoo caste and is a daughter of one of the two chief princes of India. Her parents renounced the native faith for Christianity and were lowered in rank in consequence. The daughter was educated by missionaries and came to this country about six years ago. It is her intention to take up mission work in India and she expects to find her medical training of great value in connection with her religious work. She will start for home shortly after her graduation.

Miss Chatterjee, who speaks English fluently, wears the native headgear of the Hindoo women. One member of the class who overcame many obstacles before winning her diploma is Miss Olga Povitsky, a prepossessing Russian. Miss Povitsky, who came to Philadelphia to visit a brother who is a druggist, was hardly able to speak a word of English when she entered the college four years ago. Despite this handicap she managed to keep pace with her classmates and soon became familiar with the language. She has not yet decided whether she will return to Russia or make her home in Philadelphia.

NO TRIFLING WITH THE EAGLE. A Montana Specimen Rescues Family in a Spirited Manner. W. W. Harrison, while visiting the hotel near the old fair grounds in West Brighton, Long Island, saw a remarkable exhibition of the traits of a bald eagle. Mr. Harrison is congratulating himself that he did not get within reach of the eagle's claws and says that if a preference is given him he will take two buildings rather than one bald eagle.

A porter of the hotel, familiarly known as "Doc," undertook to show off the eagle. He entered the enclosure where the bird was kept and started to demonstrate how affectionate the bird was. He playfully waved his right hand at the bird. The eagle, by the way, measures nearly eight feet from the tip of one wing to the tip of the other. With a quick movement the bird grabbed the man's hand in a grip like a vise and at the same time reached down

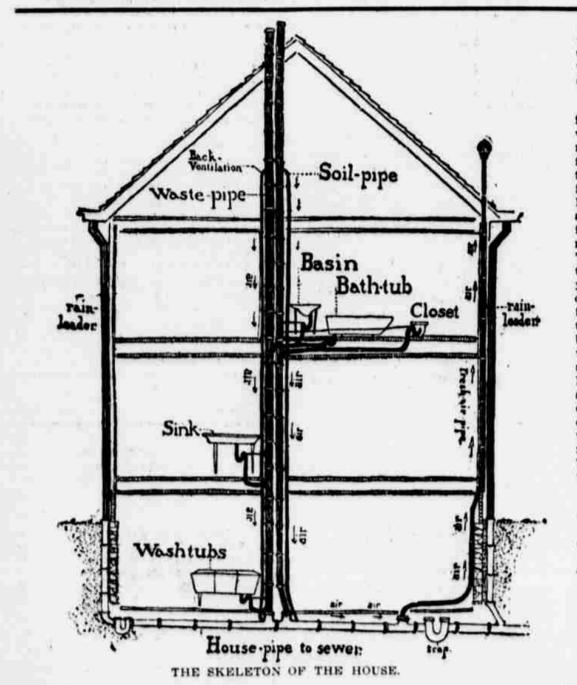
with the other claw and "froze onto" the man's left leg just below the knee. Of course the man struggled to free himself, and after a few minutes' endeavor, in which he managed to get both hands badly lacerated, he found that the bird was in the game with "both feet." Literally speaking, several men around the place heard the rumpus and, after nearly twenty minutes' work, succeeded in making the eagle release its hold. When he had had his injuries bound up "Doc" remarked that he had had enough of bald eagles.

Four Prisoners Escape. OKLAHOMA CITY, Okla., June 4.—Four prisoners escaped from the county jail here last night by cutting a hole in the cement floor and tunneling through the wall. One of the men, James Salyer, was held for murder.

Send 3c in stamps to Bath Biscuit Co. for samples of Granola. You will be delighted with this pre-digested and sterilized. A pound package contains six times the nutrient value of ordinary cereals and is rich in iron, phosphorus and calcium. Women and children derive the most benefit from Granola. Every package of Granola bears a picture of the little Creek Indian by its name. Beware of imitations. Drink Cereal Cereal (instead of tea) and sleep well—it leaves the nerves strong.

OXYDONOR. Will cause any disease to be cured by super-animating the whole system. Oxygen is life, and OXYDONOR fills your body with pure oxygen, eliminating disease naturally without the use of drugs or electricity. OXYDONOR will cure Rheumatism, Neuralgia, Asthma, Grippe, Insomnia, Catarrh, Bronchitis, Sciatica, Dyspepsia, all nervous disorders, Colds. It will improve the appetite and strengthen the nerves, giving sound sleep and thoroughly soothing the overworked brain. It is invaluable for all diseases of women and children. Can be used for all the family and will last a lifetime. Absolutely harmless. Our descriptive book A, full of interesting information and reports from reasons the people, will be mailed free to any inquirer. Send for U. S. court decree. Beware of Fraudulent Imitations. \$100 Reward. To protect your health and our reputation we will pay this reward to any one who will furnish us information on which we can secure conviction of any dealer who uses his influence to sell, either directly or indirectly, imitations where Oxydonor are called for. The only reason a dealer imposes a faked article on you is because there is a larger profit in it for him. DR. H. SANCHE & CO., 101 S. 18th St., Omaha, Neb. Other Offices: NEW YORK CITY, DETROIT, Mich., CHICAGO, Ill., MONTREAL, Que.

Arteries of the Home



The walls of a house are its bones, the plumbing its veins and arteries. Hence, whether buying, building or renting, it behooves every home-maker to know well to the ways of it, and to know enough to make the looking effective.

In perfect plumbing three sorts of pipes run down to the main house pipe, which connects with the sewer: leaders for rain and snow water, waste pipes to drain baths and sinks, and soil pipes to receive the wash of closets, waste pipes and soil pipes run up higher than the roof. Otherwise they would be a menace and fill the house with sewer gas. Attached to each of them there is a smaller pipe to secure what is called technically back ventilation.

It goes out from the pipe below the lowest plumbing fixture, and comes back into it above the highest. All along it receives smaller pipes from the crown of every trap. Thus, when a trap is flushed, the air in the pipe beneath it does not struggle or gurggle through the water and finally pass into the room, but moves readily downward before the water, followed by clean air from the pipe in the crown.

To understand that, fill a bottle with water, turn it upside down, and watch the struggle of air and water as it empties. Refill it, and after inverting it, break

Look Well to the Work of the Plumber.

of inside pipe surface shelters countless millions of bacteria, harmless so long as the pipes are in use, and therefore kept wet, but ready for mischief whenever the surface is allowed to dry.

Here is the way to tell if a trap holds its seal properly. Pour in a gallon of water, very gently, and after five minutes mark how high the water stands. Then flush the trap quickly and forcibly with the full head of the elstern. When the water is quiet again see if it reaches your mark. If it does, well and good; if not, rattled; if it flutters upward sewer air is rising through the flush water. The flame will burn upward, of course—you must judge whether there is whirling and sputtering, such as are caused by up currents of air.

If you suspect a steady escape of sewer air put a bit of light candle in a tin candlestick and set the candlestick in the closet above the trap. Leave it undisturbed for three hours and keep the bathroom closed. Sewer air is so full of carbonic acid any considerable escape of it will in that time extinguish the flame.

Open plumbing is a boon little short of light and air. It enables you not merely to see the sort of trap and its location, but also to make sure that proportion is properly observed. Proportion is all-important for many reasons. The chief of them is that where a pipe is too big for the water flow it is never properly scoured. Right here it may be well to say that a four-inch pipe will take four times as much water as a two-inch one; also that friction, which is the retarding influence in the scouring, exists in the same ratio. Too big a trap is particularly dangerous. Unless every particle of dirty water is forced out beyond the water seal the trap becomes a miniature cesspool, in which waste matter continually decays and poisons the atmosphere. No competent conscientious plumber thinks of using a trap bigger than the pipe that drains it. But there are artisans not overburdened with either knowledge or conscience. Hence it will be well to know the right thing and insist upon having it.

These are the pipe materials in their order of desirability: Lead, brass, wrought iron, galvanized iron, and copper. Of the first class the use of earthen pipe in buildings is strictly forbidden. Earthen pipe in New York may not come nearer than ten feet of the outer walls. Whatever the material, pipes should be so placed as to run as direct as possible, and so supported where they run horizontally as to make sagging out of the question. Even a little sag means a potential leak and plague spot. Horizontal pipes should fall a quarter inch to the foot. Sinks also should be slightly over the sewer. The face they must drain. Bath-tubs should not drain into soil pipes unless with double traps. If storm water is led into the main house pipe the area drains should be as carefully trapped as any other.

van Houten's Cocoa. Easy to Make—Easy to Digest and of Exquisite Flavor. Strengthening, Refreshing and most Economical in use. Sold at all grocery stores—order it next time.