DIPHTHERIA.

Some Timely Advice From the State Board of Health.

How to Prevent Its Spread—Proper Treatment for the Sick—Recipes for Fumigating and Disinfecting.

In view of the alarming spread of diphtheria in this city within the past few weeks, and a corresponding increase in the number of what may be termed "preventable deaths," the circular just issued by the California State Board of Health is a timely one and worthy of the most careful consideration. It is entitled a "Preventable Disease Circular. Facts for the People Concerning Diphtheria," and treats of the restriction and prevention of the dread disease in the following language:

Diphtheria having recently shown evidence of a tendency to spread and assume a more malignant type, the State Board of Health deems it prudent to issue this circular, and disseminate as widely as possible among the people the knowledge of certain facts and principles, which seem to be well established, as to the nature and causes of this disease, and the best mode of its restriction and prevention.

All are agreed that diphtheria, like other zymotic diseases, is not the necessary lot of humanity; that it is preventable; that its ravages are due, in very large measure, to neglect; to the violation, in one way or another, of sanitary laws, and that, though it may not be generated by filth, it finds there a soil favorable to its development; that it grows and flourishes there, and that the human system is rendered by it especially sensitive to morbific influences of every kind. A susceptibility to disease and to the contagious principle by which it is propagated is thus induced, and hence the liability of its dissemination among the members of a family or others more remotely and indirectly exposed is greatly increased. It is better, therefore, to avoid whatever may tend to depress the energies and lower the vital resistance to disease. This, it is certain, filth and uncleanliness in and around the dwelling does.

Though there is much in common among the contagious diseases as to the method of their propagation by contagion, there are differences peculiar to each which it is important to bear in mind.

SEATS OF CONTAGION.

In small-pox the special seat of activity of the contagium—"its breeding-places," to use a common term—is in the skin and its eruption and the contents of the vesicles, and in the secretions from the mouth and throat; in scarlet fever in the skin, even to the termination of the desquamative or peeling process, and in the secretions; in measles, in the skin, and in the discharges from the mouth, nose and air passages, and probably in the tears; in diphtheria, in the throat, nose, or other seat of the exudation of membranous deposit.

These may be considered the special seats or vehicles of contagion, while in all these diseases, with varying degrees of certainty, communication may be established through the breath, the perspiration, the discharges from the mouth and throat, by articles of clothing, or other substances with which the various secretions and exhalations of the body may, either through the atmosphere, or more directly, come in contact. There is also reason to believe that the contagium of diphtheria is conveyed by the evacuations from the bowels of those sick with the disease, and by water or milk contaminated therewith. The disease seems also to be capable of being conveyed by means of the domestic animals, as dogs and cats, which have frequented the apartments of the sick.

From a consideration of these general facts pertaining to the causation of diphtheria may be deduced rules for its hygienic management, and its prevention.

ITS HYGIENIC MANAGEMENT.

The disease having been introduced into a family, the fact of its contagiousness should be promptly recognized, and suitable precautions taken:

(*a*) By strict isolation of the sick. Shut off all communication with the house, especially by children, and admit to the apartment only those absolutely required as nurses. Though children are very much more liable to the disease than adults, and commonly have it in a more severe form, the latter do have it, and, besides, by visiting the sick, expose themselves to the risk of conveying the contagion to others. Visits of sympathy, therefore, however benevolent and commendable their motives, should be avoided.

(*b*) Other members of the family—children under fifteen years of age more urgently, for reasons just stated—should be removed, if possible, to a part of the house having no direct communication with the apartments occupied by the sick person. If the latter is in the upper stories of the house, probably the rooms on the lower floors may be safely used.

(*c*) The room occupied by the sick should be large, exposed, where practicable, to the sunlight, and capable of being well ventilated. It should be remembered, in this connection, that by good ventilation is understood an abundance of fresh air without a draught. All useless furniture—curtains, carpets and the like—should be removed. A disinfectant solution should be kept in the room in an uncovered vessel, in which infected clothing suitable for washing, soiled shirts, pillow cases, blankets, etc., should be soaked before removal from the apartment. They should then be boiled. The same disinfectant solution, being stainless, may be sprinkled over the bedding and carpets, when the latter have not been removed, or it may be occasionally diffused through the room by an ordinary spray instrument, thus reaching and destroying infect ous particles in the atmosphere.

USEFUL DISINFECTANTS.

A solution recommended for the above purposes may be cheaply made by dissolving eight ounces of sulphate of zinc (white vitriol) and four ounces of common salt in a gallon of water. It is better than carbolic acid and has the additional advantage of being odorless. For convenience the ingredients may be mixed by using four tablespoonsful of zinc, two of salt and one gallon of water.

(*d*) All discharges from the bowels and kidneys of the patient should be immediately disinfected by pouring over them, liberally, the disinfectant just mentioned, or by a solution of sulphate of iron (copperas, or green vitriol), made by dissolving about one and a half pounds of the salt in a gallon of water. They should then be removed and, preferably, buried, and never less than 100 feet distant from any well.

The secretions of the nose and throat should be received upon rags and these burned.

(*e*) Nurses and attendants should be required to keep themselves and their patients as clean as possible—their own hands should frequently be washed and disinfected by chlorinated soda or carbolic acid solution. The attendants upon the sick should not communicate nor associate with other members of the family, or with the public, without having first changed their clothes, and washed and disinfected themselves. The zinc solution may be advantageously used for this purpose; or thymol (a substance obtained from the common thyme and some other plants), prepared by dissolving one-half ounce of thymol in two ounces of alcohol, and adding a tablespoonful of this to one-half gallon of water. It is believed to be a valuable disinfectant, equal to and less disagreeable than carbolic acid. This solution may also be used as a spray about the room.

Corrosive sublimate, in the proportion of a quarter of an ounce to the gallon, is an unsurpassed germicide and disinfectant, but has the disadvantage of being excessively poisonous, and therefore dangerous for general use.

(*f*) Death occurring, the body should be thoroughly washed with the zinc solution, and then wrapped in a sheet wet by soaking in the same. It should then be placed in a tight coffin. The funeral should be private. The body clothes worn by the deceased should be burned, or effectually treated with the zinc solution, as above advised.

PRECAUTIONARY MEASURES.

(*g*) In case of recovery of the patient, he should still be kept apart from others—especially children—until all his clothing has been completely disinfected with the boiling zinc solution. He should be provided with uninfected clothing, and should not be allowed to attend school, or other assemblages, until in the judgment of a competent medical authority it is safe so to do. The tenacity of the contagious principle in diphtheria is admitted to be very great, and the period of time after recovery from the disease, when the danger of its communication to others may be considered past, is as yet uncertain. There is good evidence in the fact that the disease has been conveyed by infected clothing several weeks, and even months, after having been worn.

(*h*) The room occupied by the sick should, after the recovery or death of the latter, be vacated and completely disinfected. This is best done by the fumes of sulphur. As already mentioned, articles too valuable to be burned, such as linens, flannels, blankets, etc., may be treated with the boiling zinc solution.

Other heavy articles, as woolen clothing, pillows, furs and the like, which cannot be boiled, should be suspended and exposed in the room to be disinfected, and after the completion of this process hung in the open air. Mattresses and other upholstered articles should be ripped open, for better exposure to the fumes of the disinfecting agent. Carpets may be left on the floor, but afterward taken to the open air and beaten.

In using sulphur the rooms to be fumigated must be vacated. Place the sulphur in iron pans, supported upon bricks set in a tub containing a little water, and ignite it by the aid of a spoonful or two of alcohol; or place the pan containing the sulphur over hot coals, in a basin of hot ashes resting upon bricks. By the adoption of either of these plans danger from fire will be avoided. During fumigation the windows, doors, and all flues and crevices by which the fumes might escape, should be closed, and so remain for twenty-four hours. The rooms may then be opened and ventilated for some hours, the wood-work washed and the walls whitened or repapered. Two pounds of sulphur will be required for a room ten feet square.

Dry heat, at 230° or 250° Fahrenheit, where it can be applied, is likewise a valuable disinfectant.

PREVENTION OF DIPHTHERIA.

1. Under this clause are included many of the precepts inculcated in the preceding pages, especially such as relates to cleanliness. The cardinal principle to be observed, applicable to all zymotic diseases, is cleanliness. This term not only applies to the person—to individual freedom from filthiness—but to the surroundings of the dwelling, to accumulations of refuse or decaying animal or vegetable materials in the cellar or about the premises, to the privy, cesspool, drains and sewer, and to the water supply, that it is not contaminated through these sources.

See that the house drains are properly laid, trapped, ventilated and disconnected by ventilation from the sewer; that disinfectants are properly used therein, and that there is no leakage therefrom. For such disinfecting purposes the solution of copperas is the best and cheapest—five pounds to a bucketful of water.

2. Look to the cellar, that it is dry and clean, containing no filthy water, concealed filthy wells or cesspools—no heaps of decaying vegetables.

3. Whenever shallow wells are used for drinking water their surroundings should be perfectly clean; they should be protected against the slop-water and other filthy liquids thrown in the vicinity, and they should be a safe distance from uncemented privies and cesspools.

The precise definition of the word "safe," in this connection, is, perhaps, somewhat indefinite. Much will depend upon the geological character of the soil and the topography. It is considered that the distance from the well to the cesspool should not, under ordinary circumstances, be less than 100 feet.

In some of our valley towns, not easily drained, in which leaky privy vaults and cesspools have been used since their early settlement—never emptied, but covered when full and others dug near by—the soil must be saturated, and well water, under any circumstances, is unsafe.

ADVICE TO PARENTS.

4. Avoid the sources of contagion. Beware of crowded assemblies in ill ventilated rooms. When diphtheria occurs in a family, other children connected therewith should be withdrawn from school until danger of infection is past. There is probably more danger of the communication of diphtheria in the school-room than is the case with any other disease, from the fact that it often occurs in so mild a form as to be unrecognized; yet from the mildest case the most malignant may result.

5. Sore throat, when occurring in a child, particularly during the prevalence of diphtheria, should be looked upon with suspicion, the more so when there is fever and bad breath. The disease has often been conveyed by such a one by kissing, or by drinking from the same cup. As scarlet fever may occur without the rash, so there may be diphtheria without the characteristic membrane upon the throat.

6. Avoid the ordinary causes of disease—imprudence in living, exposure, unsuitable or insufficient clothing, and whatever can tend to lower the vital resistance to epidemic influence. Sound health is one of the best preservatives against infectious diseases.

The question is often asked: How long must we keep the patient isolated and from school? In reply to this query we cannot do better than give the result of the deliberations of the Paris Academy of Medicine upon this subject as applied to children with contagious disease:

1. Pupils stricken with chicken-pox, small-pox, scarlet-fever, measles, mumps or diphtheria should be strictly isolated from their comrades.

2. For small-pox, scarlet-fever, measles and diphtheria isolation should not be shorter than forty days; for chicken-pox and mumps twenty-five days is enough.

3. Isolation should last until after the patient has been bathed.

4. The clothing worn by the patient at the time he was taken sick should be subjected to a temperature of 90° centigrade (134° Fahrenheit) and to sulphur vapor, and then well scoured.

5. The pupil of a school, after recovery from one of the above contagious diseases, should not be readmitted to the school unless furnished with the certificate of a physician that the above precautions have been observed.

The circular is signed by Dr. H. S. Orme, President, and Dr. G. G. Tyrrell, Secretary, of the State Board of Health.

BACTERIA EVERYWHERE.

They Exist in Countless Millions—Rapidity With Which They Are Propagated.

The greater majority of these microscopic plants are what the botanists call "bacteria," the smallest form of vegetable life. So small are they that it would take, in some cases, as many as 15,000 of them arranged in a row to extend an inch. They have different forms, some being round, some oval, some rod-shaped, while others are much the shape of a corkscrew. In all cases they are so small that one needs a powerful microscope to examine them, and in no case can we perceive them singly with the naked eye.

When countless millions of them are grouped together in a mass or colony we can see them about as we are able to see an approaching army of which we are totally unable to distinguish a single soldier. I have said that these bacteria move about; and this is true of most of them, although there are some which do not appear to move at all, but remain fixed wherever they find a good feeding place. Those that have motion behave in a very peculiar manner; some wobble about in one place without moving forward in the least; others dart hither and thither, back and forth, at an apparently furious rate, rocking and twirling about, and turning a hundred somersaults as they move along. Bacteria multiply very rapidly, and they do this in a very curious way.

A single one breaks itself in two; then each half grows very rapidly until it becomes as large as the original. Then these in turn divide up again, and so on, until from a single one we have many thousands in a very short time. To give you the figures, such as they are, a single one can multiply at so enormous a rate that in forty-eight hours it can produce something like 280,000,000,000 of its species. Great consequences follow this enormous increase of bacteria, for while one, so small of itself, can do but little harm, the army resulting from such rapid multiplication makes it possible for them to accomplish a vast amount of damage.—St. Louis Republic.

PERSONAL NOTES.

F. Salz of Centerville is at the Baldwin.

M. Corbett of Sonoma is at the Baldwin.

H. E. Wilcox of San Jose is at the Lick.

Jesse D. Carr of Salinas is at the Palace.

A. Piersons of Sissons is at the Occidental.

Dr. McKinnon of Eureka, Cal., is at the Lick.

W. S. Green of the Colusa Sun is at the Lick.

W. W. Hollister of Napa is at the Occidental.

Dr. Clunness of Sacramento is at the Palace.

H. W. Byington of Sacramento is at the Grand.

Alfred Stebbins of Boston is at the Occidental.

Dr. A. T. Hudson of Stockton is at the Grand.

Senator W. A. Sharon of Nevada is at the Palace.

G. T. Mills of Eureka, Nev., is at the Palace.

W. Sutherland of Virginia City, Nev., is at the Lick.

Jacob Schram, a St. Helena wine-grower, is at the Lick.

Dr. Jennie McCowen of Davenport, Iowa, is at the Palace.

Robert Robinson, a mining man of Sutter Creek, is at the Grand.

James B. Little, a mining man from Fort Jones, is at the Palace.

J. B. Grant and Edward Eddy, two prominent citizens of Denver, Colo., is at the Baldwin.

An Alameda Burglary.

Mrs. Kate Rupert's lodging-house at the old narrow-gauge wharf depot, Alameda, was entered yesterday morning by burglars, who found $200 in coin and considerable jewelry in the rooms and decamped. The burglary was reported yesterday by Chief of Police Oscar Rogers of Alameda at police headquarters in this city. The house is open all night as most of the occupants are railroad men.

Single-Tax Society.

At the meeting of the Single-tax Society, held in Pythian Castle, 909½ Market street, last night, the following programme was presented to a full house:

Opening remarks, W. G. Sellers; instrumental music, Professor A. O. Eckman; speech, Thomas Watson; song, "Good-Bye, Sweetheart, Good-Bye," Mr. Cook; address of the evening, H. L. Pease, subject, "Land Restoration"; recitation, Miss L. Currie.

THE WORK OF GIANTS.

Probably the Oldest Ruins on the Hemisphere.

A Visit to Tiahuanaco—Monuments of the Past That Excite Wonder and Admiration.

There is much of interest in South American countries that the enterprising correspondent, male and female, is laying before the people of the United States through the medium of the daily papers. Fannie B. Ward, in a letter from La Paz to the Pittsburg Dispatch, writes: The traveler should not bid good-by to Bolivia without having paid some attention to an ancient town near the northeastern edge of Lake Titicaca, which Professor Squier has dubbed "the Baalbec of America." It is named Tiahuanaco (pronounced Tee-ah-uha-nah-co), and is believed by some scientists to be the oldest collection of ruins on the hemisphere. At any rate it proves the existence of a race so far antedating the time of the Incas that all knowledge of it was lost before the Spaniards came; for when the latter questioned the Indians of those days about the origin of these mighty monuments they were told that before ever the sun appeared in the heavens a race of giants inhabited the earth for thousands of years; that they grew so numerous the gods became jealous and turned them all into stone, and what appear to be the remains of huge buildings are, in reality, some of the petrified giants themselves.

This highly interesting place may be easily reached on horseback from Chillilaya; and if visited during the westward journey from La Paz, it is best to come to the former village a day or two ahead of the diligencia, so as not to miss the weekly steamer and be stranded too long on this desolate coast.

STRANGE ANCIENT RUINS.

Modern Tiahuanaco contains nothing whatever of interest except that its church and many of its houses are built of beautifully cut and polished stones taken from ancient temples and palaces. Even the pavements of its streets and the bridges over which we pass are set with them. The tall stone cross in front of the church stands on a lofty pedestal that is much better wrought than the Catholic symbol above it and inscribed with indecipherable hieroglyphics—perhaps to other gods. The corral where our animals are stalled has in its adobe walls numerous blocks of slate-colored trachyte, with snakes, toads and other mysterious emblems carved upon them; in short, from time out of mind the wonderful ruins have served as an inexhaustible quarry for the lazy and ignorant people of the valley.

The principal ruins lie on a level plain within walking distance from the village and cover an area of about three miles. There are several artificial mounds made of earth and stone, numerous edifices, and the remains of massive walls that probably served as forts or inclosures. The highest of the mounds was once terraced, each terrace supported by a wall of cut stone, and is completely covered and surrounded by ruins, with an enormous structure on top, which modern visitors have named "The Fortress."

Not far from this hill is the finest edifice of all, so far as decoration is concerned, now known as "The Temple." It is 445 feet long, 388 feet wide, made of cut and polished blocks of dark basalt, each 30 inches thick. These stones are sunk into the earth, like gate-posts, nobody knows to what depth, the parts above ground varying in height from 9 to 14 feet.

STONES PINNED TOGETHER.

Those ancient architects, whoever they may have been, seem to have not understood the use of mortar, or maybe they did not need it, being able to build a well without. Like King Solomon's temple, the stones were all made to fit exactly into one another, having round holes drilled into the top and bottom of each, at corresponding distances, into which bronze pins we placed. Scattered all about are many highly polished blocks which appear never to have been placed in position, indicating that the builders were disturbed in their work and left it incomplete.

Among the most beautifully sculptured and curious relics is an enormous block of sandstone, one single slab, 13 feet 5 inches long, 18 inches thick, and standing a little over 7 feet above the ground—which, though badly cracked (the natives say by lightning), is still upright. It must be sunk deeply into the earth to have stood so long without external support, and was doubtless meant for a doorway, as it has a central cutting 4 feet 6 inches high by 2 feet 9 inches wide. Across the upper face, above this doorway, figures in low relief are carved, which closely resemble the sculpture of Egypt, and scientists say that a finer piece of cutting in the same kind of stone, by artisans, ancient or modern, cannot be found anywhere in the world. Within the temple inclosure is a horizontal slab, about fourteen feet square, with a deep hollow in the middle, cut out like a square trough, which is supposed to have served in some of the ceremonies of sun worship. The great temple is composed of huge blocks of red sandstone, each fourteen feet long and of corresponding width and thickness, all precisely alike and cut and

LAID WITH NICEST CARE.

This is the more remarkable, as those early people must have been entirely unacquainted with iron and steel, and could have had no mechanical apparatus for carrying or working heavy bodies, every bit of the labor having to be accomplished by human strength. Neither could they have had any knowledge of gunpowder, or other explosives; but that they were familiar with the use of bronze is proved by the pins above mentioned, and a few weapons that have come to light. From some cliffs of red sandstone, more than fifteen miles away, every one of these enormous temple blocks must have been carried; but no basalt nor trachyte is found nearer than forty miles.

There seems, besides, to have been a palace, a prison, a hall of justice and other institutions, which show that the long-past race possessed some degree of civilization and refinement. None can gaze upon these monuments without being filled with wonder concerning the mysterious people who lived and died centuries before Columbus or any other European had sought the Western hemisphere.

The chuno festival is participated in by all the Indians far and near, and it is a curious mingling of the rites of the heathen Incas and the ceremonies of the church. Though antedating the Christianization of the country it is carried on to-day under the control of the priests, who, through the 350 years that have intervened since the conquest, have always found it expedient to retain some traces of the ancient customs.

As in these regions Indians and llamas are generally seen together, a description of one animal without mention of the other would be incomplete. One who has never seen a llama can hardly form an idea of how the strange little creature looks, with the head of a camel, the body of a deer, the wool of a sheep, the hoofs of a mule and the neigh of a horse. It is found nowhere but in the Andes and is the more interesting because it is the only native domesticated animal in South America, the ox, horse, sheep, hog and all others useful to man having been brought originally from some other country. It is

THE ONLY BEAST OF BURDEN

Used in the higher altitudes, where mules and horses cannot endure the thin air, as it alone is exempt from sirroche, its natural home being 9000 feet and upward. Though domesticated in Peru, Bolivia and Chile, and not able to live below a certain elevation unless the weather is very cold, great numbers of them run wild on the foothills and sandy plains of Patagonia, even near the level of the sea so far from the equator.

A full grown llama is about the size of a year-old colt, standing from four to six feet high, and is covered with a long and surprisingly thick coat of wool which, however, is seldom sheared, as the animal is used only for purposes of transportation. Its usual color is muddy brown, while a few are light yellow or nearly white. The Indians paint the latter with liquid dyes, and very odd it looks to see a troop of them in all the colors of the rainbow—red, blue, purple, pink and green—with gay tassels dangling from their ears. Many of the most valuable mines of Peru and Bolivia could hardly be carried on without these hardy and sure footed animals, though not one of them can be made to bear more than a hundred pounds weight, while the average load of a mule is 300 pounds. On all the mountain roads leading from the mines hundreds of llamas may be seen with bags of barilla, as the powdered ore is called, fastened to pack saddles on their backs by ropes made from their own wool, which the Indians pull, spin and weave as they walk along. Where the trails are dangerously narrow each troop is led by one having a bell attached to his neck, so that travelers coming from the other direction may be warned by the ringing to wait in some place where there is room enough to pass.

A PECULIAR ANIMAL.

None but Indians, shy as themselves and unhampered by the ways of civilization, can manage llamas, and white men never attempt it. If an ounce more than 100 pounds be added to his burden the beast will lie down and refuse to stir until the surplus is removed, and whenever he is tired, burden or not burden, he is bound to stretch out until well rested. Meanwhile the patient driver will halt all the rest of the flock and lie down, too, waiting by the roadside until the refractory animal is ready to move on. An Indian never strikes his llamas, the utmost coercion he uses under any circumstances being a gentle push. Indeed, he takes better care of them than he does his own children, perhaps with good reason, since the four-footed animals are of more value commercially. The latter are worth alive about $7 apiece, but sell for more when dead, in the shape of hides, meat and tallow. The natives prefer llama flesh, after it has been frozen, to any other kind of meat, and make great account of the tallow, which is called sabo, using it for many purposes.

Male llamas only carry freight, the females being kept in corral for breeding purposes. Soon as a young male is ready to stand he is trained to bear burdens, and at 2 years old is put into an alquila, the usual drove of twenty animals. To drive this number easily two persons are required. An Indian will take his alquila, with 100 pounds piled on the back of each, and, assisted by his wife or child, will drive them a distance of 150 miles in 18 or 20 days. For this service he charges at the rate of 80 cents per diem to each beast, Bolivian cents, worth about half as much as ours.

THE EXPENSE OF TRAVEL.

At this price he feeds himself and the animals, and furnishes the necessary ropes, sacks and other equipments; reckoning 40 cents a day for the llamas, 20 cents for the wear and tear of sacks and ropes, and 20 cents for the food of himself and companero. The sack in which he carries grain, ore, etc., costs in the currency of the country $1 25, but will last a long time. Under this contract he will sometimes make a journey of two or three months' duration, and save money out of it.

The llama subsists upon a mountain shrub or species of a tough, coarse grass mixed with the sand in which it grows. He drinks almost no water and can travel without food for a week, if given a square meal at both ends of the journey. If too well fed he is subject to a skin disease, which invariably proves fatal. Some years ago, in 1857, I believe, an effort was made to introduce llamas into the United States; but it could not be carried out, principally because the food was too good for them. Seventy-two llamas were taken from Peru to New York. Only thirty-eight of that number survived the sea voyage and those were pastured on a Long Island farm—which certainly must have been cold enough for the most fastidious animal of the Andes. In the spring scarcely a dozen of these were left alive; these were sold to museums and menageries and died at the first approach of warm weather.

A circumstance in connection with this singular animal should not be omitted, viz.: that its dung is universally used for fuel in Bolivia and many parts of Peru. It burns as readily as wood, gives out a great deal of heat, has no odor and can be bought at the rate of 60 cents per hundred weight, therefore it is highly prized in treeless sections, where coal costs from $35 to $48 per ton, and the only other alternative is a kind of spongy fungus that grows on the mountains.

A QUEER FUEL SUPPLY.

A great deal of complaint is just now rife in La Paz against the Electric Light Company, the citizens asserting that so much llama dung is consumed by its furnaces that their supply of food will soon be exhausted. Knowing it to be in general use in the kitchens of the country, the tourist in these parts ceases to insist on toast and broiled steaks and becomes quite willing to put up with the eternal stews and fries. The commercial name of the fuel is taquia, and owing to the habits of the animal, it is by no means difficult to gather. For example, in certain places along every road where llamas are driven, always at the foot of the hills and in these places only, will taquia be found—not an atom of it anywhere else for miles around. The same is true in corrals and fields where the animals graze, each invariably adding his own quota to the general accumulation, always in precisely the same spot.

Llamas have a queer but effective way of defending themselves when teased or made angry. Stamping the fore feet and turning suddenly upon the object of rage, they will eject between the teeth a pint or more of saliva, throwing it with great force a distance of several feet. This saliva produces a stinging sensation on the skin, and if it gets into the mouth or eyes or any place where the skin is broken violent inflammation is immediately caused, and deathly blood-poisoning has been known to ensue. Therefore, those who are acquainted with the peculiarities of the beast are very careful to keep on the right side of his temper and at a respectable distance from his nose.

ITEMS OF INTEREST.

Ingenious engineers suggest that the arteslan well may be developed by means of electrical appliances into a powerful and cheap source of almost unlimited power.

The latest statistics show that there are 71,287 lepers in Bengal, 13,944 in Madras and 13,842 in Bombay. The lepers in the native States are not included in these totals.

The Japanese Government is having constructed at the yards of the Messrs. James and George Thomson, Clydebank, Scotland, this doorway, figures in low relief are carved, which closely resemble the sculpture of Egypt, and scientists say that a finer piece of cutting in the same kind of stone, by artisans, ancient or modern, cannot be found anywhere in the world. Within the temple inclosure is a horizontal slab, about fourteen feet square, with a deep hollow in the middle, cut out like a square trough, which is supposed to have served in some of the ceremonies of sun worship. The great temple is composed of huge blocks of red sandstone, each fourteen feet long and of corresponding width and thickness, all precisely alike and cut and

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THE ONLY BEAST OF BURDEN

Used in the higher altitudes, where mules and horses cannot endure the thin air, as it alone is exempt from sirroche, its natural home being 9000 feet and upward. Though domesticated in Peru, Bolivia and Chile, and not able to live below a certain elevation unless the weather is very cold, great numbers of them run wild on the foothills and sandy plains of Patagonia, even near the level of the sea so far from the equator.

A full grown llama is about the size of a year-old colt, standing from four to six feet high, and is covered with a long and surprisingly thick coat of wool which, however, is seldom sheared, as the animal is used only for purposes of transportation. Its usual color is muddy brown, while a few are light yellow or nearly white. The Indians paint the latter with liquid dyes, and very odd it looks to see a troop of them in all the colors of the rainbow—red, blue, purple, pink and green—with gay tassels dangling from their ears. Many of the most valuable mines of Peru and Bolivia could hardly be carried on without these hardy and sure footed animals, though not one of them can be made to bear more than a hundred pounds weight, while the average load of a mule is 300 pounds. On all the mountain roads leading from the mines hundreds of llamas may be seen with bags of barilla, as the powdered ore is called, fastened to pack saddles on their backs by ropes made from their own wool, which the Indians pull, spin and weave as they walk along. Where the trails are dangerously narrow each troop is led by one having a bell attached to his neck, so that travelers coming from the other direction may be warned by the ringing to wait in some place where there is room enough to pass.

A PECULIAR ANIMAL.

None but Indians, shy as themselves and unhampered by the ways of civilization, can manage llamas, and white men never attempt it. If an ounce more than 100 pounds be added to his burden the beast will lie down and refuse to stir until the surplus is removed, and whenever he is tired, burden or not burden, he is bound to stretch out until well rested. Meanwhile the patient driver will halt all the rest of the flock and lie down, too, waiting by the roadside until

JOHN AND WINTHROP.

A Whaling Bark That Brought a Disaffected Crew.

Story Told by a Patient in the Marine Hospital—The Captain Gives His Account of the Trip—To Go Into Court.

Since the arrival of the whaling bark John and Winthrop in port a number of charges of cruelty have been made against the captain, John A. Cook, by the seamen. The truth of the matter will probably be developed before the United States Commissioner this morning, before whom the captain will appear to answer to a charge made by Joe King, who shipped on the bark as a boat-steerer and returned as an ordinary seaman.

A reporter of THE CALL interrogated one of the crew of the bark at the Marine Hospital yesterday afternoon. The ticket at the head of the patient's cot read as follows: "No. 37—Charles Black; age, 35; native of California; compound fracture both bones of right leg; admitted November 6th."

Black's story was to the effect that he had shipped on the John and Winthrop as blacksmith and seaman, leaving this port on December 11th last. On the afternoon of August 4th he was one of a crew of a boat in charge of the second mate that lowered after a whale. He was surprised at being ordered to go, as it is not customary to send the blacksmith when there are plenty of seamen for duty. He also wondered at only one boat being lowered, when the custom is to send at least two.

CAPSIZED THE BOAT.

When the whale was struck it stove in and capsized the boat. The mate and himself clung to the wreck and the rest of the crew, numbering five, were in the water. The captain lowered a boat and went after the whale, failing to strike it. The whale attacked the wrecked boat and broke my right leg with its tail. The captain's boat came back and picked us all up, except Charles Collins, whose breast was injured and who sank. Another boat was lowered and the whale was captured.

Black said that the captain had treated him well during the voyage. He corroborated the articles published against the captain, charging him with bad temper and cruelty, and without being directly responsible for the death by drowning of the sailor, Charles Collins, in failing to rescue him instead of continuing the pursuit of the whale when wrecked the second mate's boat. The cruelty alleged consisted of tricing up a seaman named Walter and belaboring some of the crew with a handspike.

THE CAPTAIN'S STORY.

Captain Cook was also seen yesterday and questioned about the charges made against him by his crew. His account was as follows: "On the night of April 7th my ship was on fire. We put out the fire and then I crawled below and found a five-pound meat tin filled with tar-oil and wrapped in tarred rope. We were then in the Japan Sea. The next morning I ordered all hands on deck and made an investigation into the incendiarism. Suspicion fell upon four men, two of whom, William Ritchie and Lewis H. Kilbourn, convicted themselves by confessing their crime during the day. I then discovered a plot to scuttle, burn or take possession of the ship, and it did not take me many minutes to impress my crew with the fact that I had taken the bark out of port and intended to take her back. I put Ritchie and Kilbourn in irons, but it was not long before they were again on duty after promising good behavior. I gave them no chance to fraternize with the crew during the remainder of the voyage. According to their testimony James McGregor was the ringleader, but I could not prove the charge.

DESPERATE CHARACTERS.

"My crew was made up of desperate characters, who regarded my kindness toward them as an acknowledgement of my inability to command them. They drove me to the wall, and then became aware that they had a captain who could and did conquer them.

"I have read the charges against me in the articles published, and deny every one of them most emphatically. If there was any truth in the absurd statements made by the mutinous seamen I could not have shipped all my crew within forty-eight hours after my arrival in port. Every one of that new crew have sailed before under me.

"The complaint upon which I have been arrested was made by Joe King, who shipped as a boat-steerer. He was quarrelsome, incompetent, and I cautioned him unmercifully beating a boy. On account of his ill-temper I had him put in irons for twenty-four hours and took away his position as boat-steerer.

"Stewart, the boy who told the yarn about me, has gone East. He had run away from home, and his mother sent him money to take him back to her.

"I will give any of my crew a chance to make their statements against me when my trial comes on before the Commissioner, and I feel perfectly confident that I can make them all perjurers before the trial terminates."

EVIL INFLUENCES.

Rev. Mr. Gray Preaches on the Power of Perverse Women.

Rev. Mr. Gray preached last evening to a large congregation in the People's Church, Metropolitan Temple, on "The Evil Influences of Wicked Women." He began with an allusion to the philosopher's words, that "love is the greatest thing in the world."

"The greatest of our gifts," said he, "when it becomes tarnished becomes the greatest of all evils. Whoever lifts his hand against the holy face of love walks in darkness, and they who follow walk in darkness after. In this complex nature of ours womankind plays a great and a marvelous part. We may talk as we please about men filling woman's sphere, and women men's—it is unnatural, and God never willed that it should be so."

The preacher contended that it were better that they should stay in their respective spheres. And continuing he quoted from scripture: "The woman whose ways incline to death is a strange woman," which led his theme on to the evil influences of the saloon. Since women, whose lives were beginning to bend from the virtuous path, have been allowed to conduct and pass their time in these places, he asserted, the criminal life of this city has become quadruple in its wickedness. The degraded and evil life led by women in the dives and saloons was pictured in its full horrors, and the evil influence of these creatures as meaning that a perversed heart is a ruin. With this was contrasted pure and holy love of woman. "You may change the current of a man's thoughts and also a woman's, and men may see the evils of their way on one side and good upon the other," the preacher said; "but when you poison the region of the heart—the soul—when we get into the interior of our own being and find that place becomes polluted it seems impossible to renew it or move it to repentence. It is said by the sisters of the Roman Catholic Church, whose merciful work brings them in contact with perversed women, that few who go that way ever return."

Mr. Gray dilated on the beautiful qualities of the good woman and showed that they were equally powerful in their influence over men when perversed. And he claimed that it is the duty of Christians to pray, labor, watch and be charitable to save and help all who may come under the shadow of these influences.

NOSE AND LEG BROKEN.

A Boiler-Maker Falls From a Car, With Serious Results.

James O'Reilly, a boiler-maker, fell from a Hayes-street cable-car last evening and sustained a fracture of the nasal bone and had his left leg broken below the knee. The unfortunate man was intoxicated, and in getting off the car fell forward. The fender of the car broke his leg. The accident happened on Market street, opposite First. O'Reilly is about 60 years of age. His injuries were attended at the Receiving Hospital. The wounds are not mortal.

Run Down by a Cable-Car.

Ex-Policeman James Slattery met with a serious accident yesterday afternoon at the corner of Howard and Eighth streets, and though bruised and shaken up severely had a fortunate escape from a worse fate. He was driving in a buggy and turned aside to allow a Folsom-street car to pass, but in so doing forgot the cable-cars on Howard street, one of which collided with his buggy, smashing it to pieces and mixing himself up in the debris. When taken out he was removed to the Receiving Hospital for medical treatment.

Tried to Drown Himself.

George Magee jumped into the bay from Howard-street Wharf yesterday afternoon while under the influence of liquor. He was rescued by sailors who saw him plunge into the water. At the City Prison Hospital Magee remarked that he did not want to live any longer and tried to drown himself, but on second thought and when sober he declared he would not do so again.

MISCELLANEOUS.

WORKMEN

Need not quit work or lay up. No danger of taking cold on it or being interrupted by violent purging, debilitating sickness or pain. Simmons Liver Regulator acts so gently and naturally that you hardly know it is the effect of medicine. It is better than a dose of pills, sure to act, easily taken, no bad taste, and sure to cure. Such a medicine for man, woman and child should be kept in every house, as it prevents sickness and saves money. J. HUGO, Middleport, Ohio, writes: "Have taken Regulator with satisfaction; can safely recommend it to all afflicted with liver complaint. I have been subject to congestion of the liver and have taken from 15 to 20 grains of calomel, which generally laid me up for three or four days. Lately I take Simmons Liver Regulator, which gives me relief without any interruption to business."

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AUCTION SALES.

GRAND AUCTION SALE
Of Rich and Elegant Furniture, Carpets, Mirrors, Etc.
M. J. SIMMONS, AUCTIONEER,
WILL SELL THIS DAY.
Monday.....November 10, 1890,
At 10 o'clock A. M.
At 1057 Market street, near Seventh,
All of the Nearly New and Costly
PARLOR, BED and DINING ROOM FURNITURE
Axminster and Body Brussels Carpets; Gold-frame Mantel Mirrors; Oak, Walnut and Cherry Folding Beds; Center Tables, Wardrobes, Book-cases, Cylinder Desks, Chiffoniers, Extension Tables, Sideboards, Hall-stands, Lace Curtains and Draperies; 36 Nearly New Body Brussels and Tapestry Carpets and Rugs; Fine Ranges with fixtures complete, and a large line of other Fine Furniture too numerous to mention, being the former contents of 4 elegantly furnished houses.
M. J. SIMMONS, Auctioneer.
N. B.—Owing to the large quantity of elegant furniture and carpets this sale will commence at 10 o'clock A. M. sharp. Rem