



There were several important points which had to be omitted from a recent lecture upon the home treatment of scarlet fever. I will therefore in another complete form of treatment, give the additional information which is required for the further relief of scarlet fever.

When it is definitely learned that the patient is suffering from scarlet fever, the additional other method is as follows: Shave about one-half pound of castile soap and dissolve it in a quart of hot, soft water. Procure a large, heavy woolen blanket, soak it in hot water, and wring it out so that it will not drip. Without allowing the blanket to get cold, spread the soap paste on the surface of it and wrap the body of the fever-stricken patient in it with the soap next to the skin. An old cloth or old quilt should first be spread so that the bed will not get wet, and then enough covering should be added to retain the heat as long as possible. Apply cold compresses to the head and change them as often as is necessary to keep them cold. The patient should remain in the blanket as long as it is moist and comfortable. The rash will almost immediately come to the surface, perspiration is started, and the body will at once begin throwing off the poisons that are the seat of the disturbance. When the blanket becomes uncomfortable remove it and cover the patient with the ordinary bed clothing. Without removing the latter, sponge the body with warm water and then with an antiseptic.

As long as the skin is moist the case is progressing favorably, but as soon as it becomes dry, efforts should be at once instituted to start perspiration. Frequently a case of scarlet fever first comes into evidence by vomiting of the victim. This often happens before there is any manifestation of sore throat. Of course when the stomach is the first organ to resist the entrance of the disease, we should not tax it with any work more than is necessary, and for the first 24 hours of the disease should be entirely without food. A few teaspoonfuls of water slightly above blood heat every 10 or 15 minutes are good, and to the water may be added a few drops of lemon juice or vinegar. The vomiting will probably cease at the end of a day or two. Anticipate the fever by giving the hot foot baths and keeping the skin in good condition.

Following these simple home treatments may prove to be sufficient to check the disease and sometimes the physician's services may be dispensed with. Do not wait until every symptom of scarlet fever presents itself, but act promptly, and see if you can prevent their appearance. The fact that the disease does not fully manifest itself after you have promptly used all of these measures does not prove that it was not scarlet fever at all, but that practical common sense and hydrotherapy have triumphed over the disease, and saved the patient from a dangerous illness.

The principal value of the Home Health Club lessons is to enable people to keep as far from the gates of death as possible—not to allow any disordered condition to carry the patient as near to them as possible, before turning back and seeking to resume the journey of life upon the happy road to health. Therefore, do not hesitate, no matter if you are laughed at and told that your fears were groundless, because you have conquered scarlet fever before it got started. There are people who would let such a case go until the symptoms were too pronounced for them to be mistaken, rather than adopt these energetic measures and have some silly say their fears were groundless. It is much better to err upon the safe side when scarlet fever is epidemic in your neighborhood.

Sweet Grape Juice. For several years I have been teaching the importance and value of fruits and fruit juices; at the present time there are a great many factories in those portions of the country where grapes grow well which are devoted exclusively to the production of pure, unfermented grape juices. To such an extent has this industry grown that a most excellent quality of the delicious drink can be purchased at a very moderate price; still there are many who have the grapes, and would much prefer to put it up at home. Most excellent instructions are given in farmers' bulletin No. 175, issued by the United States department of agriculture, for making unfermented grape juice at home, and as home methods which pertain to health all belong to the Home Health Club, we will appropriate it because a supply should be kept in every household.

"Use only clean, sound, well-ripened but not over-ripe grapes. The grapes may be crushed and pressed in a portable cider or wine mill, or by hand. These can be put in a clean washed cloth sack and hung up, or the sack can be twisted and hung until the juice is expressed. The juice should be gradually heated in a double boiler or a large steamer in a pan of hot water so that it does not come in direct contact with the fire at a temperature of 150 degrees to 200 degrees. If there is no thermometer at hand, heat the juice until it steams, but do not allow it to boil. Put it in a glass or enamel vessel, to settle for 24 hours; then carefully drain the juice from the sediment and run it through several thicknesses of clean flannel, or conic filter made from woolen cloth or felt may be used. This filter is fixed to a hoop which can be

suspended whenever necessary. Fill into perfectly clean bottles, leaving a little space at the top for the liquid to expand when heated. Put a thin board over the bottom of an ordinary wash boiler, transfer the filled bottles (ordinary fruit jars of glass are just as good) in it, fill with water around the bottles to within about an inch of the tops, and gradually heat until it is about to simmer. Then take the bottles out and cork or seal immediately. Grape juice prepared in this way will keep perfectly fresh an indefinite length of time, and will always be ready for immediate use."

Taking the Cure in a Tree. The September number of Health Culture tells of a curious but effective method of cure that is being worked out by Orin Steinberger of Urbana, O. The climate of people of Mexico and Arizona evidently did not suit him so he secured the altitude and air by living in the top of a very tall tree.

For ten years Mr. Steinberger has been suffering from pulmonary trouble. He went to Mexico and Arizona for his health, and remained for some time. He did not get any better, and returned home. He then decided to go to nature and live the life of the birds. He selected one of the largest and highest trees in the country, and stated that he intended to make his residence among the branches. For several months Steinberger has lived in his strange residence, and during that time he has gained in weight, and the tan of health has returned to his face. His condition to-day compared with that of six months ago, shows marvelous improvement. While he is not yet fully cured, he is rapidly regaining health. Steinberger has constructed an odd rope swing or ladder, which is operated by means of a block and tackle, fastened to the branches. At one end is a seat, and by grasping another rope a visitor can draw himself up the trunk of the huge tree. Around the trunk, where the first large branches project, a platform has been built large enough to hold 20 persons.

Club Notes. Dr. David H. Reeder, Laporte, Ind.—Dear Doctor: We have long been readers of the Home Health Club department, and of your helpful articles, so now that we are in trouble, we naturally turn to you for advice. Our only son has been for the past year a signal

maintainer on the railroad, being much exposed to inclement weather. A few weeks ago he came home with a cold on his lungs, which he had had since May. He had doctored it, but said nothing of it in his letters, as he did not want to alarm us. His throat is badly congested, and he coughs and raises much, especially at night. His countenance is healthy, but he has lost flesh, especially lately. When I put my ear to his left side I hear a slight wheezing sound when he breathes. His appetite is good. Is the sound I hear an unfailing sign of tuberculosis? I want all the information I can secure upon the subject, and would like a book treating of the hope there may be for consumptives. Respectfully, B. F. L.

No, the sound which you hear is not an unfailing sign of tuberculosis, but does give you good and timely warning that proper care and attention should be exercised in regard to the future, when one is engaged in any kind of work which is surely sapping the foundation of health. There is only one practical and sensible thing to do—quit. Another position? There are always plenty of openings for people who are faithful and willing workers. No matter if the pay is a little less, better take less, and have good health, than to earn more and have to pay it out in doctor's bills. I think if you will procure volume 2 of the Home Health Club books, and follow the advice therein in given for the home cure of catarrh, bronchial troubles, and consumption, you will need have no further fears in regard to your son, especially if he will take proper care of himself during the coming winter.

All communications for this department should contain at least four cents in stamps, and should be addressed to Dr. David H. Reeder, Laporte, Ind.

Baked Okra. Wash and dry medium size okra pods and cut in thick slices, place in plenty of salted boiling water and cook until tender, which will take about 20 minutes. Drain off the water and save for soup stock, to the okra add butter, pepper and salt, place in an earthen baking dish and place in a hot oven and cook for ten minutes. Serve hot. Serve with fricassee chicken.—Washington Star.

Fish Tibbit. Take what is left of baked or boiled fish, remove the bones and skin and warm the fish in hot milk enough to moisten, turn it out on a platter; poach three or four eggs, lay them on the fish; mix one tablespoonful of chopped parsley, a few grains of cayenne, a little salt, with two tablespoonfuls of butter, melted; pour this evenly over the eggs and serve at once and very hot.—Good Literature.

Milk Soup. Use one quart of new milk, one salt-spoonful of salt, one salt-spoonful of powdered saffron, one teaspoonful of granulated sugar, add all together for an hour in a pitcher set in a kettle of water. Then add the well-beaten yolks of two eggs. Good for delicate persons and children.—Boston Budget.

Stuffed Apples. Take six large sweet apples, peel and remove cores. Stuff cavities with chopped dates and raisins. Plug both ends with pieces of apple and bake until tender. Serve with plain or whipped cream. What to Eat.

TREASURY GUARDED.

ELECTRICAL DEVICES SURROUND NATION'S MILLIONS.

Inside Vaults Covered with Tin Foil Which is Alive—Time Locks and Men Constantly on the Watch.

One of the greatest stores of treasure in the world is contained in the vaults of the United States government at Washington. In the treasury building a large quantity of the paper money is completed and prepared for circulation, but in addition to this notes which are issued by the national banks upon deposits of bonds in the United States are stored in a compartment which contains literally over a million dollars' worth of them. At all times the quantity of gold and silver coin of various denominations is so great that its weight represents several tons. The silver is kept in a number of vaults, but the supply of gold coin is divided between two compartments.

To protect the treasure from robbery says a Washington report, the government has employed a force of armed watchmen, a number of whom are continually on duty. Each man is assigned to a certain patrol. Every time he makes the circuit he presses the lever of an instrument which records his movements and the time when the lever is pressed. This is called the watchman's time detector and is used to keep a check, as it might be called, upon his movements, but, in addition to the watchmen, the doors leading to the treasure-rooms are fastened with locks which can only be opened at a certain hour. They are called time locks for the reason that they are provided with clockwork which is set to permit the bolts to be thrown back only at stated intervals.

Although no robbery has ever occurred at the treasury except through employees, the authorities have decided upon a different means of protection and have completed a system by which the electric current is the principal safeguard. Experts say that it would be absolutely impossible for a person to touch one of the doors or the inside surface of the walls of the vaults without an alarm being given at the various points of the treasury, so essential is the safeguard devised.

It is arranged in this way: The inside of the vaults was first lined with hard wood compactly joined at every corner. Upon the outer surface of the wood was laid a coating of tin foil, which is one of the best conductors of electricity known. To the tin foil was attached what would appear to be a fine netting composed of wire polished until it appeared as if plated with silver. The ends of the wire were carefully joined together with solder, which is known to be another excellent conductor of the electric current. Over the netting another lining of wood and tin foil was placed, so that it is thoroughly protected from the air as well as from the possibility of anyone tampering with it.

Thus not only the walls but the floor and ceiling of each vault have been completely smothered with wire. To the netting is connected what is called a feed wire that whole being so arranged as to form a perfect electric circuit. The feed wire extends to the power station in the building, and by its means an alternating current of electricity is transmitted through the network, the current being varied three times in every interval of five minutes; consequently the treasure is practically surrounded by what might be called a sheet of electricity.

The conductors are so delicately arranged that, as already stated, if one merely touches the woodwork on the inside of the vault or attempts to open one of the doors when the vaults are intended to be closed an alarm is given so quickly that the watchmen could reach the place from which it was sent within actually less than two minutes from the guardhouse. Each vault is provided with duplicate alarm to avoid any possibility of one becoming disarranged and failing to perform its duty.

If for any reason the electric current should be cut off this is also announced automatically in the guardhouse, the police stations and in the engineer's room of the power station. With the electrical system the treasure will be protected by three methods—the watchmen (who will continue to be employed), the time lock and the invisible monitor. The vaults at the treasury are considered among the best ever made for the protection of treasure, but robberies of banks which have recently occurred in the states show that burglars have tools with which they can successfully penetrate the hardest steel. Actually, articles no larger than the size of a pin hole have been large enough to allow of the insertion of the points of tools with which the metal can be bored and a charge of explosives inserted, thus forcing open the side or door. Successful robberies have occurred where nitroglycerin has been forced into a tiny crack with an air pump and then ignited. Recently however electricity has been used with remarkable effect upon vaults composed of the heaviest steel. It was a test of this kind which so alarmed the government representatives that they finally decided upon using the same force to protect the treasure.

Knew from Experience. Young Lady: You are a wonderful master of the piano, I hear. Prof. Von Spieler (thru for the occasion)—I play accompaniments sometimes. "Accompaniments to singing." "Accompaniments to conversations."—Smith's Weekly.

NEW PHOTOGRAPHIC PAPER

Claimed in Paris to Produce Pictures in Colors, But Found by Government Expert to Be a Fraud.

Alvey A. Adee, assistant secretary of state, is an expert photographer, as nearly everybody knows. No man in the United States, perhaps, is better posted on the new wrinkles of the photographic art, says Ira E. Bennett, in the Chicago Daily News. Mr. Adee investigates every new discovery and determines for himself just what the thing is worth. He was greatly interested in the recent announcement from Paris of the invention of a photographic paper which would faithfully reproduce colors. It was hailed all over the world as a great invention, solving the mystery of color photography. Mr. Adee sent for some of the paper, tested it and found it practically a fraud.

The claim made for the paper was that a photograph taken through an ordinary monochromatic lens, printed upon this paper, would develop a series of colors true to nature, varying in perfection with the degree of skill employed in the art of printing. Mr. Adee's experiments and tests proved that the paper did not in any way solve the great problem of obtaining colors by the transmission of their wave-lengths, through a lens and fixation upon paper or any other substance. The French patenting inventor had evolved a paper which was a gelatinized material, the gelatine being laid on in three coats of different colors. These gelatin films or coats are sensitive to certain intensities of light. If a strong, bright light is employed the effect is a blue-white color upon the paper. If a medium light is used the resulting color is yellowish-brown, and if a faint light is used, dark green is the result. The combination of these three colors—light blue, yellow-brown and dark green—is the composition of an ordinary landscape, which consists of trees and foliage (dark), houses and roads (yellowish-brown), and the sky (light blue). With consummate skill and ingenuity the French inventor had evolved a paper which, if artfully used on an ordinary landscape, would in fact reproduce the colors in strikingly faithful fashion. But the claim that the invention had solved the problem of color photography was easily perceived to be absurd and needed only a slight change in the composition of the picture to become a fraud.

For example, it was shown that the maker of colored photographs by the new method should never permit a white or black cow to come within range of his lens, for the result in the completed photograph would be a blue and green cow respectively—something that has not yet been observed outside of the mysterious realm of poster work. Color photography is still a dream.

ALL OR NONE WOULD GO.

Colored Party with Pigs Gives Colored Party with Dignity the Indignant Go To

"Bixby" hawled the brakeman on the Mooreville line, and the train dived down in front of two or three houses and five country negroes standing close to the track, relates the Charlotte (N. C.) Observer. There was a central figure in the party. He was a man of middle age, and the others looked as if they were his family. The man had under each arm a little pig or soot, and they were resting tranquilly in their places. The negro had on most gay apparel, but the most striking thing about him, outside the pigs, was a blue celluloid collar. He made for the steps as the train came to a standstill, but the brakeman intercepted him. "You can't take dem pigs on board," said he. "Hucome?" asked the would-be traveler. "Cause you can't; dat's why."

The negro balled with rage. "I'd like to know why dese pigs is objectionable," said he, in an aggravated tone. "Ise carying 'em an' dey ain't got no 'sturb nobody." "Drap dem pigs an' sit on 'em of youse wintner," said the brakeman, sharply, signalling to the train to start. "Weese got no time to 'scuss dis."

But the old man turned doggedly on his heel to the other members of his party. "Go on wid your durned ole train," he called over his shoulder. "Ef dese pigs don't go nelder do I go. An' dat's right."

The train pulled away, and the negro with his pigs still reclining reposefully in his arms stood and regarded it with a look of supreme disgust. **Temporarily at Fault.** The amateur burglar paused, irresolute. "So far, I've got along all right, but I've forgot what the instructions say I must do in case the windows has patient fastenies on them. I'll have to look that up."

Here he took a copy of a popular magazine out of his pocket and turned his dark lantern on an illustrated article entitled: "How a Flat is Looted Without Disturbing the Inmates. By a Reformed Burglar."—Chicago Tribune.

Advantage in Kansas. "Sally's father said her bean should never step foot in the house again," said the Kansas girl. "Then I suppose she had to give him up?" interrogated her chum. "No, indeed. She entersains him in the cypress cellar."—Chicago Daily News.

A BIG CACTUS FARM.

ONE IN ARIZONA THAT SUPPLIES WORLD'S GARDENS.

Many Varieties Grown Are Exceedingly Useful—Some Queer Specimens—Paying Enterprise.

A mile south of Phoenix, close to the usually dry channel of Salt river, is one of the oddest farms in America. It is planted in nothing but cactus, of every form found within Arizona. Each kind is cultivated under the same conditions prevailing upon its native heath, to as great an extent as is possible, reports the Los Angeles Times, and most of them thrive well under the hot skies of southern Arizona, cared for by experts. The main owner of the farm is Dr. R. E. Kunz, a college-bred German scientist who has taken up the study of cacti and their cousins as his life work. A physician, he has particularly studied the plants for the possibility of securing products valuable in medicine. And the utilitarian side has appealed to him in other ways and he knows the plants wherefrom come good fruit, those that bear good water for the thirsty desert traveler and those useful to the architect of the aboriginal house-builder.

Arizona has become the source of supply for cactus for most of the botanical gardens of the world, and this demand for plants has increased till a lucrative industry has arisen from what would seem to the uninitiated one of the most unpromising floral fields of the world.

The most prominent of the cacti of the garden is the saguaro. Its large white flowers cover the end of every branch in April and May, followed by a greenish yellow fruit, which when it bursts discloses a scarlet pulp filled with black seeds. This is very nutritious. Another species of far greater use, if not attraction, is cereus thurberi, or plays of the natives, which was named after the late Dr. George Thurber, editor of the American Agriculturist of New York. Its northern limit is 115 miles from Phoenix in a southwesterly direction, and extends into Sonora southward. The flower is white, nocturnal and smaller than that of the saguaro.

The fruit of this species is of delicious taste and for months is the support of tribes of Indians, who then feast upon it. The pulp is also dried for future use and a sirup, as well as an intoxicating liquor, is made from the fresh fruit. The Yavik, Papagoes and Pimas largely subsist on the fruit of this cactus. The stems of this cactus grow from six to twenty feet high.

Perhaps the queerest cactus of all America is cereus grexii of Arizona, known to Mexicans as Jara matrasa. Unlike any other cactus it has a very large tuber in place of fibrous roots, and it resembles a great sugar beet below the surface, weighing from two to four hundred pounds. The stems are not more than two to four feet high, as thick as a finger and covered with very short spines. The tuber is medicinal, used externally in Mexico. It is the Arizona night-blooming cereus, fragrant, the flower white and large as a saucer.

Engelmann's hedgehog cactus, known as echinocactus engelmanni, grows in clumps of from two to twenty joints having very large, brownish white spines, from one to one and a half feet in height. Its brilliant rose-colored flowers, very fragrant, appear in April, and by the latter part of May are followed by a crimson edible berry of the size and flavor of a large strawberry. "Opuntia" is the prickly pear family, of which we have many specimens of various colors. The flat-jointed bear in some cases fine fruit, while the round-branched, often twisted like a rope, has a woody fruit unfit for food. These are met with on the desert tableland and mountains. But most of these are seen together cultivated on the cactus farm near Phoenix.

Inoculating Fields. The same bacteria that increase the harvest of beans or clover or alfalfa tenfold enable the plants to leave many times more nitrogen in the soil than they would have done if uninoculated; in other words, they make the soil many times more fertile, so that the crop of cotton or wheat or corn or potatoes planned next year is many times larger. Thus the rotating crop the year following inoculation derives an equal benefit from the inoculation. For instance, a crop of crimson clover, not inoculated, added to one acre of land 4 3/4 pounds of nitrogen; a crop of crimson clover, inoculated, added to one acre of precisely similar land 147 7/8 pounds of nitrogen, an increase of 32 1/2 times; a crop of inoculated hairy vetch added to one acre of similar land 15 times more nitrogen than a crop of uninoculated hairy vetch.—Century.

Roses Old as the World. Rose culture's beginning goes back beyond records. The flower is mentioned in the earliest Coptic manuscripts. India's traditions take the rose to the times of the gods on earth. Egypt had roses, wild and tame, before the Roman occupation made it, in a way, Rome's commercial rose garden, yet curiously enough, there is no reference to the flower in painting, sculpture or hieroglyphics. Japan, in our time, parades its roses, and there is a not uncommon practice for owners of cycles to take out a car license, which costs the same as a cycle license and includes the right to ride the small machine. Saturday Review.

Automobiles in England. We may take 1896 as the year when motor cars began to be common. But up to the end of last year not more than 14,000 "self-propelled vehicles" had been registered. Since the bill came into operation on January 1st the number has increased to over 30,000. The total number of motor cycles has actually been tripled in the last seven months. Probably the number of motor cycles is even greater than appears, as it is a not uncommon practice for owners of cycles to take out a car license, which costs the same as a cycle license and includes the right to ride the small machine. Saturday Review.

DELIGHTFUL CATASTROPHE.

Breaking Up of a Mississippi Steamboat That Gave the Passengers a Good Time.

After the terrible steamship and railway accidents which made the past season memorable, it is pleasant to read of an affair so delightful for its victims as the recent sinking of the Mississippi river steamer Chalmette proved to be. The Chalmette was the last of the old-time cotton packets on the Mississippi. There are many big stern-wheel cotton-carriers, and several side-wheel passenger boats, but the Chalmette was a relic of the old St. Louis-New Orleans trade. She was the City of Vicksburg of the anchor line, but was rebuilt some years ago to carry cotton to the port of Chalmette, below New Orleans. She could stow 5,000 bales on her spar-deck, and with her guards awash and the cotton stacked high above her cabin deck, was a spectacle once common, henceforth to be unknown on the river. When the Louisiana Purchase exposition opened she was put on as a through boat from New Orleans to the fair, and thus opened a trade which had been dead for some years.

On a Saturday in July she started north with about 40 passengers and a lot of freight. Late Tuesday afternoon she was within 35 miles of Natchez, when in backing out from a landing, she struck a snag and knocked a hole in the stern. She swung round with both ends resting on the bank in a little eddy, but with 70 feet of water under her amidships, and began to fill.

The passengers were quickly notified, the gang-plank was run ashore, and everybody walked out and found a seat on the gently sloping, grassy levee to watch the spectacular death of the last of the packets. The crew hastily brought the passengers' baggage ashore, then brought the furnaces from the galley and all the provisions from the pantry, and the tables from the saloon.

In half an hour the steamer broke in two and sank. Then as darkness settled on the river the passengers on the levee began a picnic supper, prepared by the darky cooks over the rescued furnaces. There was no lack of supplies, the evening was gloriously cool and still. A more beautiful location for a picnic could hardly have been selected. A skiff had been sent up to Natchez for help, and until another steamer came to the scene the passengers were content to pass the time in the most comfortable manner.

On the river bank a crowd of spectators turned in turn to the constabulary and the cookroom darkies singing—not the old plantation melodies for few of the river hands know them, but the modern "rag-time" songs which come south to them from the vaudeville stage. Under the Bamboo Tree and all the rest of them made the night melodious, and at last, when the picnic was beginning to pall, the rescuing steamer came and took all on board for Natchez, whence they went on their way by rail to their destination.

NEW SPOTS ON THE SUN.

One Nearly Forty Thousand Miles Long Seen by a German Professor.

Prof. Stenzel announces to the scientific world that since August 22 he has observed on the southern hemisphere of the sun some exceptionally large and numerous sun spots. Since the disappearance, on July 27, of the last of the extensive June and July groups of spots, these products of condensation still continued to show themselves, but they invariably remained small and inconspicuous, says a Berlin report.

On the night of August 21 and 22, however, there appeared in the southern spot zone on the eastern edge an extensive stretch of eruptions of brilliant radiance, which were visible only near the edge of the sun and afterwards these could be recognized therein by day spots which through spherical shortening, were in form similar to lines. As further advance was made toward the center of the sun's meridian the group of spots increased in size and soon took enormous dimensions. On August 27 the group assumed the curious shape of a beautifully formed garland, which showed in its western part a huge black mass like a meteor, and consisted of very numerous single spots. On August 28, when the group already had the center of the sun behind it, it possessed a total length of 69,480 miles.

This gigantic area of eruption was followed in the south spot zone at an interval of two days, by a smaller eruption with a black spot of still very respectable size, and this was followed by a third in the same zone of likewise large dimensions, having one main spot and several smaller spots, which had extended, by August 24, three days after its appearance, over a distance of from 34,740 miles to 38,601 miles.

Going Without Sleep. A Philadelphia physician tells of a doctor who went without sleep for eight days and nights, and of another who did not go to bed for 13 days. Napoleon rode for days in the saddle apparently without sleep. No authentic tests probably exist.—Philadelphia Press.