## PEST HOMES.

WHERE VICTIMS OF CONTA

New York's North Brother Island System is by Far the Best in the World-Where Cholers Patients Go.



LONG way up the East River, beyond a sunken meadow, writes a New York correspondent of the Picayune, three islands block the channel that winds past the forts to Long Island Sound, Two

wastes of bay weed and sand. Tac third juts into the channel with grass-grown bluff. Great bowlders washed by every tide lie at its base. Upon its brow stands a lighthouse with a big fog bell in its white tower against a background of green trees. The fishing boats that dot the channel keep to the windward of the island. Passengers on the deck of the big outgoing Sound steamers watch the sunset glow in the myriad windows of a group of red brick buildings on its shore, wondering what they may be, while the city's spires fade away in the distance. Presently several shrill blasts sound from a steamer's whistle and at the signal, as the boats shoot behind the point, a krot of men, carrying a stretcher between them, are seen making their way down to the landing. The men are orderlies from one of the hospitals. The blasts were sounded by the New York Health Department's steamer coming up from the city to tell what it had on board. It is the official language of North Brother Island varied to suit the particular pestilence of the trip. For this is New York's pesthouse, better known in this day as the Riverside Hospital. Whatever may be the shortcomings of

New York in other respects, it is particularly gratifying just now to recall the statement made by Jacob A. Rus, in a recent number of the Cosmopolitan, that it is far in the lead of the municipalities of the world in the management of pestilent diseases.

In recent years a mervelous change has come over North Brother Island. day, where once was a waste of sand, are broad and shaded lawns; winding, well kept walks, trees, shrubs and flowers; handsome, substantial buildings and hospital pavilions or wards, arranged on a plan securing perfect and absolute isolation with a maximum of comfort to the patients. One result is seen in a very low death-rate, considering the character of the institution. Last year before the importation of typhus fever in the shipload of Russian exiles, it was sixteen per cent. of about 900 cases.

The old pesthouse is still there, but even that has lost its terror. Become a harmless measles pavilion, it stands upon the northeast shore of the island at one end of a half circle of one-story frame buildings, seven in number now, but so planned as to be capable of in-definite extension as the needs of the growing city may demand. The island itself has grown under the hands of the builders. Low places have been filled in, the half-score acres of available ground have become thirteen, and in place of the sandy beach, of which the winter storms claimed their share year by year, has come a strong sea wall against which the breakers rage in vain. The frame buildings are the fever wards.



MISS HOLDEN, THE CHIEF NURSE

Scarlet fever and measles claim most of the pavilions in times of comparative This year typhus fever in raded them. In the sudden rush their capacity was quite exhausted, and a camp of tents was pitched on the lawn to shelter the overflow. It was while the weather was yet cold, and a cry went up against the supposed outrage. As a matter of fact these tents have board floors and a stove that make them very comfortable abodes and much preferable in the eyes of the physicians to the wooden houses, ecause the ventilation in them is serfect, partly because not much is lost in destroying them when the scourge has had its day. Even the pavilions are built on the modern hospital plan with this end in view. It is the easiest way to get rid of a malignant contagion. Flame is a great purifier. Still, one hesitates to rn up a house, while a tent is touched

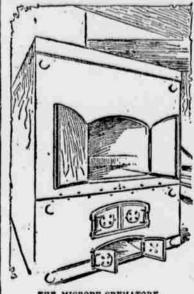
off without a pang.

All travel to and from North Brother Island is restricted to two routes, that by the department steamer from the re-ception hospital at bixteenth street, which is pre-empted for the sick, and the other via the 135th Street Ferry. This latter "line" is represented by a single yawl propelled by a sphinz like boatman, who answers calls on the drum telephone the abore end of the ferry. On visit-days—twice a week—a few scat-ed callers come sometimes to see

tion of an occasional inspector of the Health Department, these are the only new faces ever seen on the island—lit- he gets the same as all the rest. The Health Department, these are the only new faces ever seen on the island-literally faces only, for no visitor is per-mitted to go far beyond the ferry dock without having enveloped him or herself in the ugly Mother Hubbard gown and big rubber overshoes that are the uniform of the island, worn always in the

sick wards.

Though the island is connected with the city by cable and telephone, the little hospital of nurses spend their lives there in virtual banishment from the world. It has happened that a whole winter has passed without any one of them crossing over to the mainland. The doctor may travel on the steamer, and does when he has time, but the nurses Their duty is on the island, and not. there is always enough for them to do;



THE MICROBE CREMATORY.

for whether there be two or twenty patients in a pavilion they must have their own purse. No other will do lest the pests get mixed up and the end become worse than the beginning. There are six women nurses, young girls all of them, who with rare devotion and courage have put away from them all that makes life sweet, and taken upon them this dangerous duty. Their chief is the matron, Miss Kate Holden, who for ten long years has led this life of solitude and sacrifice. She is a Southern girl whose people lost their all in defense of the lost cause-so the tradition of the department runs. It was little less than a lost cause she espoused when, having finished her course in the Charity Hospital Training School, she offered herself to the Board of Health. A typhus outbreak had then decimated the staff of the old Riverside Hospital on Biackwell's Island, and the authorities were at their wits' ends where to get other nurses. They looked aghast at this frail young girl, and asked her, almost harshly, if she knew that she was courting almost cer-tain death. She replied calmly that she knew; it was her chosen work. So they took her, and the doctors soon learned to trust her as their chief support in the unequal fight. Before it was won she too succumbed, and for weeks the city across the river that had heard the story of her devotion and her suffering listened anxiously day by day to the bulletins from her sick bed. She recovered and was made matron in the course of years at the munificent salary of \$60 a month. Ever since she has been the mainstay and guardian angel of the island, coupling with her duties as matron and nurse now those of hospital apothecary as well. Having passed the requisite examination, she has been duly commissioned to mix the medicines as well as care for the sick. When, last February, in a single day fifty-goven Russian exiles were found in half a dozen lodging-houses suffering from typhus fever and were packed off to Riverside Hospital, followed by a procession that swelled their number to a hundred before the week had passed, Miss Holgen spent forty hours among them, without sleep and almost without food, arranging, soothing and cutting the hair from their fevered brows, until, literally worn out, she had to be carried

EIn the administration building the nurses have a library given by thoughtful friends, and even a music-room that is not neglected under the pressure of life's sterner cares. They cross the threshold of this their refuge only to take up their never-ceasing round of duties. The rooms of the physician in charge, the autocrat of the island, are on the main floor. His little principality embraces two-score subjects, male nurses, helpers and attendants of all His rule extends to the boilerhouse next door, where the steam is generated that heats all the hospital buildings, and whence the very complete fire-extinguishing apparatus of



IN ISLAND REGIMENTALS.

the island is directed in time of need.
At the door of the kitchen, in the building on the other side, it stops short.
There the matron takes charge, weights out all the groceries, and sees the food for the sick and the well cooked. It is the best that can be bought for money, though none is asked or exacted

General Government is the only paying customer of the department. It sends customer of the department. It sends that reach quarantine to Riverside, paying a fixed sum for their care. Yellow Jack and cholera it deals with at quarantine itself. Its diphtherm patients go to the Willard Parker Hospital, in Six-teenth street, where the health department keeps its cwn as well. Diphtheria, unless complicated with other dis-

Upon the main shore also are the disintecting furnaces or crematories, through which all infected clothing must pass before readmitted into the community as safe. The clothing of typhus fever patients never returns. It is fed to the lames as the surest way of rendering it harmless.

As an institution North Brother Island is unique. There is nothing like it any-where in the world. In the great cities of Europe they have floating hospitals for small-pox and more or less perfectly isolated "contagious wards" in their ordinary hospitals. The isolation secured in New York is absolute, and it must ever be the chief defense of the city and of the Nation against an enemy that is

forever knocking. Hoffman Island, where the cholera patients go, is about two miles south of the Narrows, and, says Frank Leslie's Illustrated, gets its name from Governor Hoffman. It is built on a sand-bar known to pilots as West Bank, and rises abrupty out of the water on a pile of rocks. The island itself, covering a few acres, is composed of sand inclosed in a cribwork, which in turn is protected by the rip-rap. About nine hundred patients can be handled there at one time. On it are the germ-proof dormitories for disinfecting, and in every direction the assertion is borne out, so often made by sea captains, that the New York quarantine is the safest in the world.

The floors of the building are made of asphalt, while the ceilings are constructed of galvanized and corrugated iron. The partitions are also built of iron, while in some portions the smaller walls are built of enameled brick. There are no mattresses in the dormitories, and the cots are the simplest kind of hammocks suspended over iron frames. Steam does everything, from disinfecting to cooking. Bath tubs to the num-



HOFFMAN ISLAND, NEW YORK BAY.

ber of sixty-eight, made of metal, are utilized for bathing the immigrants, and necessary, the infected water can be disinfected before it is discharged into the bay.

The disinfecting chamber of the dor-

mitory is on the upper floor, and is built entirely of iron. It is a room filled with frames which rest on sliding tracks. On each frame rests a wire basket for the clothes of each immigrant. All are kept separate from each other. When the clothes are put in these baskets the first thing done is to exhaust the air in the chamber. Superheated steam, which may rise to 250 degrees, is sent under high pressure through 9000 feet of coiled piping in the rooms, and gauges indi-cate the pressure in the chamber. In the engine rooms the degree of heat in the disinfecting room is indicated by the ringing of electric bells. So thorough is the work of disinfection that it is imossible for the attendants to re-enter the chamber for several hours after the windows have been reopened.

#### Long Finge: Nails.

To allow the nails to grow to an inordinate length is common in China, an an indication that the owner follows a sedentary occupation or leads a life of leisure. Long nails on the right hand would interfere with the use of the brush (corresponding to our pen), and would therefore reflect unfavorably on the person concerned, as tending to show that he did not devote himself to composition and literary exercises, the pride of every educated Chinese. They are almost always confined to the left hand, therefore, and are at times very long, delicately-chased silver cases being worn to protect them. Some years ago I met a Chinese gentleman who had carefully guarded the growth of the nails on the third and fourth fingers, the former for some ten years, the latter for over twenty-five. The nail on the fourth finger, when the silver protector was removed, was some six inches or more long, and twisted like a corkscrew. Some few months later, this gentleman owing to an accident, broke the nail. His grief was as great as if he had lost a near relative.-Notes and Queries.

# Jewels and Their Uses in Watches.

Few people understand just what is the practical value of the ' jewels" in a fine watch. These tiny bits of precious stones are set in the "bearings" of the machinery-or "movement," as it is called-where the pointed ends of the little pivots turn and turn continually. This constant grind of the sharp little points would wear away the hardest metal. Only the hardness of a precious stone can resist the severe friction. Garnets are sometimes used and sometimes sapphires. These, being harder, are put into the new improved, quickwinding watch, which adds to its wearing qualities. It is one of the marvels of the watch trade, that a jewelled watch of this high grade can be sold so cheaply.—Boston Cultivator.

ueen Victoria possesses a small cabinet ose du Barri china that is valued at

## CHINESE FARMERS.

COTTON AND RICE RAISING ON THE YANG-TSE RIVER,

Three Crops a Year-Primitive Tools -Low Plowing in the Water-Chiuese Wages-A Chineso



broken levees and dotted with graves as thick as havcocks on a New England mendow. The farmer's house is always hut, writes Eli Perkins, in the New York Sun. It is generally built of rice straw and looks like a straw stack in Illinois with holes eaten into it by sheep

and hogs. It would be a poor cow shed in America. When not made of rice straw it is

built of rough boards or adobe bricks one story high, has paper for windows and is thatched with rice straw. It has no chimney and no stove. There are no flowers about it as with the Japanese. A pig and a cow may occupy the same The pig is a scavenger with big cars. The farmer has a few black cars. The farmer has a few chickens and ducks, but never eats them himself. He never sees a newspaper. He has no carpet, no musical instrument, no books, and seldom a clock. floor of his house is hard ground. bed is straw. He has no windows in his house or hut. In winter he covers himself with rags to keep warm, and in summer he is almost naked. He sows his barley or rice in a bed, hoes them by hand, reaps them with a sickle, and winnows them in the wind. A quarter of an acre is a big farm. He has no knowledge of politics. China might have a big war and he would never hear of it till troops marched into his rice field.

The tools of the average Chinese farmer are a basket, a tea kettle and a four-tined hoe. This hoe is very heavy, and is used for spading as well as hoeing. He raises it in the air as a black-

to their knees. After the rice is har-vested a full crop of radishes is put in. In order to irrigate for rice water is pumped on to the land by hand, though sometimes a revolving belt covered with buckets is propelled by a buffalo cow which walks round and round like thrashing horses in America.

Rice in China is worth about a dollar a bushel. A Chinaman can live on four bushels of rice a year. This, with pea-nut oil, tea, and a little sugar, costs

about \$3 a year.
"You think five dollars a year in
America," said Mr. Leonard, our Consul General, "is cheap living, but if a man in Chicago should live on boiled wheat with a little cotton seed oil, tea, and sugar, he could live as cheap as the Chinese. It is meat which makes living expensive in England and America. It takes eight pounds of cereals to make a pound of beefsteak, and where you get pound of beefsteak it is only worth about a third as much as a pound of wheat or corn. Americans reduce the

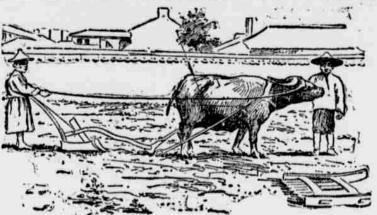


THE CHINESE FORKED HOE.

nutritious quality of their food thirty fold, by feeding it first to the anima and then eating the animal.

"China," continued Mr. Leonard, "supports 490,000,000 beings, but they cat the cereals. America could support four billion people if they would eat corn and wheat like the Chinese. But instead of that, Americans feed eight pounds of corn to a sheep or steer and then eat the steer."

The Chinese cow on the Yank-tee is a semiamphibious animal. You will often see her grazing with her head entirely under water. This is the animal that a well-dc-to farmer uses for plowing, instead of his wife and daughter. He uses the milk and muscle of the poor cow. It is pathetic to see this patient old cow plodding along through the rice fields knee deep in mud.



A CHINESE COW PLOWING.

smuth raises his sledge, imbeds it in the | The plow she is drawing is a rude bit of earth, and pulls it forward. The food of 400,000,000 people is cultivated by this one implement. A trashing machine or a reaper is never seen in China. The Chinese put as much labor on an acre as an American farmer would on twenty acres. A Chinaman will raise enough on an acre to support a family of seven and pay his dollar and a half in taxes. The size of a Chinese farm is from a hundred feet square to three acres. A quarter of an acre will keep a man busy, but he will raise three crops a year on it. First he barley or wheat in the winter. When the wheat is heading, cotton is sown broadcast. After reaping the barley and wheat in June the little cotton is seen coming up. Then the barley roots are pulled up and the cotton comes on. It is in beds and is all hoed by hand. It grows low and has a short table. Chinese cotton would not bring three cents a pound in New Orleans, and the yield is about 200 pounds to the scre. Men and women draw the crops to market on two-wheeled carts. Cotton is not baled but crowded into sacks like wool. Horses are seldom seen on a farm in China; men and women do the work of the horse. A Chinese farm

laborer gets about four or five cents a day and his rice. Notwithstanding labor being so cheap n China the superior skill of our Anertcan cotton planters and the good qual-ity of their cotton and its cheap price is destroying the cotton industry in China. China will have to give up cotton and go into rice, barley and pennuts. Last year the Chinese mised only 100,000 bales of cotton. The raising of silkworms here will always thrive, and silk will be reeled from the cocoons into skeins by cheap five cents per day labor, but silk weaving will have to go to Engand and America, where they use power looms. Tea will always be raised in China, where five cent labor can pick the leaves. The tea plant is the same as our camellia or japonica.



A CHINESE FARMHOUSE.

If rice is to be raised after barley and wheat, the land is flooded with water. Men and women, knee deep in water, puil the harrows. Then the rice is set out in the water in hills a foot apart. It is common to see women working in the rice field covered with straw garments

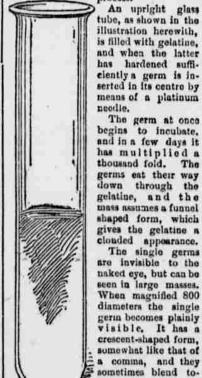
a log with an iron point. A digger Indian could make it. It was used be-fore Noah went into the ark, and it will be used a thousand years fron now. The Chinaman never changes.

# Propagation of Cholera Germs.

The culture of the cholera germ is an exrtemely interesting though very simple process.

An upright glass

The germ at once



germs eat their way down through gelatine, and the mass assumes a funnel shaped form, which gives the gelatine a clouded appearance.

The single germs are invisible to the naked eye, but can be seen in large masses. When magnified 800 diameters the single germ becomes plainly visible. It has a crescent-shaped form, somewhat like that of a comma, and they sometimes blend together in the form of

a spiral. Dr. Koch discovered the cholera germ in India in 1883. - New York World.

## Electric Spark Photography. Professor Vernon Boys lately brought together in the United Presbyterian

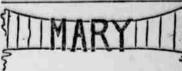
Church Synod Hall, Edinburgh, Scotland, a monster audience to hear his lecture, with experiments, on "Electric Spark Photography." In the course of Spark Photography." the lecture Professor Boys explained that by the electric spark articles moving at the rate of 10,000 miles an hour can be photographed, and by the introduction of a revolving mirror a speed of 180,000 miles an hour can be with. The mirror makes 1024 turns every second, worked by electricity, which is equal to about 150 times as fast as a rifle bullet travels. The whole photographic power of the spark is over in a time equal to the ten or eleven millionth part of a second, and it is during that incredibly brief space that the image is made on the sensitive plate.

—Scientific American.

Odd Things From Orchard and Garden. If any boy or girl desires to make a unique and very acceptable present to a friend he or she can do so by following the accompanying instructions, and besides will derive great pleasure in preparing the gift. It consists of im-printing any name chosen upon the skin

of apples, pears or vegetables.

Select any strong-woven, dark woolen cloth; cut letters from it about threequarters of an inch square; when you



PIG. I. CLOTH LETTERS FOR SUN MARKING.

have enough to form the name, paste them in the proper order on some thin, tough paper; when dry take strong white linen thread and connect the tops of the letters together oy sewing through them, as shown in Fig. 1, leaving the ends long enough to reach around the article to which it is to be attached. These ends should have short strings connecting the tying cords,



PIO. II. SUN-LETTERED APPLE.

being longer as you recede from the name, for an apple, the last one being an inch and a half in length. When the fruit is quite fully grown select a smooth, fair, healthy looking apple from the south side of the trees, and tie the name portion on the side facing the sun, and in a few weeks the portion of the skin underneath the letters will have bleached to a very light shade. Of course you will have soaked off the paper on the back preyious to tying in posi-tion. A late keeping apple should be chosen, and a red variety is pref-How it will appear when the cloth letters are removed is shown in Fig. 2.

When desiring to imprint a melon, pumpkin, or other vegetable, larger letters can be used and more of them as in Fig. 3. Instead of letters the year may be imprinted, or any plain design, like a pair of half open scissors, hammer, etc., being careful to tie the strings firmly, and in case of fruit, chaose a specimen that will not be touched by another or where an adjoining twig will not change



PIG. III. INSCRIPTION ON WATERMELON. the position of the lettering, even if you are compelled to cut away some small branches .- American Agriculturist.

#### Making the Dumb to Speak.

There cannot be an instance of a person born dumb regaining speech, for no one can regain what he never possessed, though he may acquire it. In speaking, however, of persons born dumb we must exclude the vast majority of those called deaf and dumb, for their inability to speak arises from no malformation of the tongue, but they remain speechless because, having been deaf from birth or early childhood, they have never heard the conversation of others, nor learned to imitate it. Large numbers, who in this scose have been deaf and dumb all their lives, have learned to speak by signs or by the motion of the lips, or by sounds such as ordinary persons produce. It is difficult to tell generally whether a person is dumb from birth, because the defect is not at first suspected. But there are cases of real congenital dumbness. It arise from injury to the lingual nerves, or nerves of the tongue, or from general or local debility. But it may arise from a visible cause, from the child being tongue tied, the franum lingua, as it is called, or bridle of the tongue-a membrane underneath it-extending too far forward towards the tip of the tongue, so as to prevent the tongue being expended or put out. This may make it impossible for the child to suck, and, if not relieved, may interfere with its speech. A surgeon can snip the thin part of the frænum, care, however, being taken not to endanger the lingual artery. It is not certain, however, that a tongue tied person could not speak, for Jussiën, one hundred and sixty years ago, recorded the case of a girl of fifteen year old, who had never possessed a tongue, and yet could speak without inconvenience, and persons learn to do so who have had their ongues to a great extent removed .-Yankee Blade.

Evolution of the Watermelon.

