

The lavatories should be in semi-detached buildings, properly warmed and ventilated, and should contain stationary bath tubs and a few portable ones, and in sufficient number to bathe five hundred persons in one day. They should also contain fixed basins of the most approved pattern, and in such number as to facilitate rapid use. Slop sinks should be provided in a separate apartment, and sinks for dish washing should be off the dining room.

The laundry should be in a building with accommodations for washing the bedding and clothing of eight hundred or one thousand persons. It should have stationary but not wooden tubs; also boilers, rinsers, wringers, and all the modern appliances, supplied with steam. There should be a capacious dry steam drying room, and all of sufficient capacity to pass through the clothing of eight hundred or one thousand immigrants in as short a time as possible.

Each pavilion or apartment should be provided with iron beds, wire mattresses, bedding, tables, chairs, etc., of the best models, the latter so that detained persons need not be forced to sit or lie upon the floor during the day. Bedding should be simple in quality, abundant in quantity, and kept scrupulously clean, and when not in use carried to a suitable place for airing and storage.

Dishes, spoons, knives, forks, and all such necessary articles should be provided, and should be kept in the custody of the employees, except when in use, and be cleaned by the employees and not by the detained persons.

If the present buildings are to remain, a space could be partitioned off in one corner of each of the large rooms, with accommodation for twenty-five or fifty sitting at a narrow table. They should be accessible from the hallway, not from the main rooms, and should be kept locked except during meals. With separate buildings or pavilions, provision could be made in a central building for serving meals at separate tables to those in the different rooms.

Complete simple suits of clothing should be provided for the temporary use of immigrants during the disinfection of their own clothing and baggage, and such clothing should be carefully cleaned, or, in case of suspected infection, destroyed.

There should be an abundant supply of towels for the wash and bath rooms.

The disinfecting plant should be located in a separate building near the water's edge. The plant should consist of two or more large iron cylinders or chambers. These should be lined with steam pipes connected with a superheater, so that a dry temperature of at least 220° Fah. could be easily obtained. It should be arranged so that moist steam under fifteen or twenty pounds pressure could be introduced.

The sources and collection of water needs careful consideration, as a plentiful and pure supply is of the first importance. It would be wise to fill up the present cisterns and construct new ones, with every safeguard against contamination. The water used for drinking, cooking, washing utensils, dishes, etc., should be above suspicion, and, at stated times, critically examined. All collections of water should be carefully protected from surface drainage. Rain water for storage should be taken from roofs not liable to possible contamination. It would be well to provide for an emergency by having a large reservoir to which water could be brought in case of drought. Water for drinking and cooking might be brought in water boat from the Croton supply.

Some provision should be made to relieve the tedium that must befall a large shipload of passengers who, after encountering the dangers and sufferings of an ocean voyage, are unwillingly detained in full sight of their port for a considerable period of time, or it may be until the fact has been made clear that they are or are not to be victims to a dread disease.

There should be at time of occupation a resident medical officer on the island, who should be superintendent, and also skilled in every detail of modern sanitary science.

The approach to Swinburne Island is defective, owing to a bar between it and Hoffman Island. It is difficult to land the sick, as there is no protection from the wind.

The present pavilions are too low on the ground, and with little or no air space beneath the floors. The floors of all the wards are defective. The ground beams are giving way, and there appears to be no ventilation underneath.

The wards are lacking in ventilation, there being no adequate roof ventilation. At present the air currents are likely to be blown from one ward into another.

The remains of patients who have died of contagious or infectious disease should be subjected to such processes as would render them, before burial, innocuous, and prepare them for a decay which would not imperil the living.

The islands are small. The buildings are all most combustible. A fire occurring on Hoffman Island, crowded as it was last autumn, would have driven panic-stricken men, women, and children into the sea.

This danger is equally great on Swinburne Island,

though it is probable that the crowding there will never be so great. The more helpless condition of the sick, however, in hospital wards would increase their peril. The fire apparatus in both places is entirely insufficient. The limited area of each island would make any fire apparatus insufficient if the buildings happened to be crowded and a high wind were prevailing at the time of the conflagration. All buildings on such islands for similar purposes should be fireproof.

As a related matter we would allude to the possible effect produced upon the business interests of New York and the country at large, if cholera were permitted to invade the dense population of the city. It is estimated that about one hundred thousand dollars a day are received by those hotels in the city of New York from which people would flee if an alarm of cholera existed there. The amount of money received over the counters of shops from those who frequent the city to buy its innumerable wares cannot be estimated. It is millions. Hundreds of millions of dollars are annually produced in values in our various factories. To disturb the peace and industrial interests of the city, by permitting the irruption of cholera through defects in quarantine, would inflict an injury upon business beyond computation.

The time consumed in reaching San Francisco by railroad is about that of the possible maximum period of incubation of cholera. The germs of any of the contagious diseases admitted into the port of New York by inadequate quarantine might be conveyed to any portion of the United States, fructifying as they went. Every citizen in the United States and British provinces has, therefore, a personal interest in the condition of the New York quarantine. The existence of cholera in New York would cause the entire country to quarantine against the city. In this way interstate commerce would be paralyzed or seriously embarrassed. As regards the effect upon the health and death rate of the people we cannot even surmise, as that question would turn on the efficiency of the sanitary police. The law of cholera, its propagation, limitation, and extinction, are so well understood that the disease may be said, without presumption, to be subject to scientific prevention or control.

If there is neglect in this matter, and cholera, which has threatened to invade our port for more than three years, and has recently been brought to quarantine, should appear in the spring, and, favored by warm weather, pass an imperfect quarantine and reach New York City or Brooklyn, or possibly extend beyond to near and remote places, public opinion would seek out the blameworthy and visit them with a condemnation which no seclusion would be deep enough to smother or mitigate.

PHOTOGRAPHIC NOTES.

Making Portraits Indoors.—In a communication received from a correspondent who has experimented in taking photographs indoors, he states that he has succeeded in making excellent portrait negatives, equal in fact to the results usually obtained under a skylight, as follows:

"Select a good sized north window, place the sitter about three feet back from the window, and hang up in the rear of the sitter some gray material for a background, also hang up a white sheet a few feet from the sitter on the dark side to reflect as much light as possible, then arrange the camera and stop down the lens so as to give say from four to eight seconds' exposure. Have a mirror, size about 2 feet by 3 feet, ready within reach, and immediately upon removing the cap from the lens seize the mirror, and with it direct the light upon the dark side of the sitter's face, giving the mirror a swaying motion during the exposure. When sufficient exposure has been given, put down the mirror and cap the lens. The sitter should be cautioned against following the movements of the mirror with the eyes."

Some recent experiments made with the magnesium flash light show that it can be utilized to good advantage in making portraits beside a window as above described, in a much shorter time. The light takes the place of the mirror. By placing the light compound on a table five feet away from the person, in such a position as to equally illuminate the shadow side, it is only necessary in making the exposure to quickly remove the cap from the lens, set off the flash light, and immediately recap the lens. It is advisable that the subject get accustomed to the suddenness of the flash, by making one or two preliminary flashes before exposing the plate. The lighting of the shadow portion of the face is very easily controlled, for if the light is flashed close to the sitter, the shadow will be less, but if flashed quite a distance away the shadow will be greater. Hence any degree of softness or balance between the daylight on the one side and shadow on the other is readily obtained.

Toning of Silver Prints.—In a communication to the Derby Photographic Society, Mr. Edward J. Lovejoy says: I have chosen the "Toning of Silver Prints" as the subject upon which to offer you a few remarks this evening, and trust that what little information you may gain from them may be of use to

some of you. As a preliminary to toning, I may mention that the color of the print is much influenced by the character of the negative, also that unless you get a good negative—that is, one having a wide range of tones—you cannot get a good silver print. Allowing that your negative is all that can be desired, and after printing somewhat deeper than the finished print is required to be, in order to allow for loss in the subsequent operations, the print is removed from the printing frame, trimmed, and put into a dish of water to dissolve out all the free silver, frequently changing the water till it no longer shows signs of milkiness, then place it into another dish of water in which a little common salt has been previously dissolved. This converts any remaining free nitrate of silver into chloride, which is afterward dissolved out of the film in the fixing bath. I believe the salt bath to be very essential, and for this reason: it causes the prints to take a little longer to tone, by which they get a much finer deposit of gold on their surface, which adds to their permanency.

After the print has been in the salt bath a few minutes it is rinsed again in water, and is ready for toning. There are several kinds of toning baths, with nearly all of which excellent results can be obtained. I will here, however, give you the formulae for two only, both of which I use myself, and get very good results: Chloride of gold, one grain; acetate of soda, twenty grains; water, eight ounces. This should be made at least twelve hours before using. The other is: Chloride of gold, one grain; water, twelve ounces; borax, half an ounce. Sufficient bicarbonate of soda should be put into the gold solution to neutralize any acid that may be in it. This bath may be used as soon as cold, for it is necessary to dissolve the borax in hot water, and, when cold, add the gold to it. This is an important point—the gold must be added to the borax, and not the reverse. The print is now placed in the toning bath, printed side down, and moved about to expel any air bells which may have adhered to the under surface, and it is well to keep the solution in motion till toning is completed, as, where there are a number of prints in the bath, it causes the gold to deposit equally on all.

The print should remain in the bath till of a fine purple tone, which usually takes from twelve to fifteen minutes, and I recommend the bath to be used at a temperature of about 70° Fah. The print is then taken out and placed in a solution composed of methylated spirit four parts, water one part. This will prevent blisters from appearing on the print, which is a source of great trouble, and very prolific with some brands of ready sensitized paper. It is then put into the fixing bath, made of hyposulphite of soda, two ounces; water, twenty ounces; liquor ammonia, fifteen drops. Fixation will be complete in fifteen or twenty minutes, when it should be taken out and washed in repeated changes of water, in each of which it should remain five minutes, and between each change it should be laid upon a piece of plain clean glass, face down, and a squeegee passed over the back—this is a very effectual way of removing the hypo. out of the print—then wash in running water for several hours.—*Reported in Br. Jour. of Photography.*

Medicinal Qualities of Onions.

The free use of onions for the table has always been considered by most people a healthy and desirable vegetable, and but for their odor, which is objectionable to many, they would be found more generally on our dining tables.

For a cold on the chest there is no better specific, for most persons, than well boiled or roasted onions. They may not agree with every one, but to persons with good digestion they will not only be found to be a most excellent remedy for a cough, and the clogging of the bronchial tubes which is usually the cause of the cough, but if eaten freely at the outset of a cold, they will usually break up what promised, from the severity of the attack, to have been a serious one.

A writer in one of our medical journals recently recommended the giving of young raw onions to children three or four times a week, and when they get too large and strong to be eaten raw, then boil and roast them, but not abandon their free use.

Another writer, advocating their use, says: During unhealthy seasons, when diphtheria and like contagious diseases prevail, onions ought to be eaten in the spring of the year at least once a week. Onions are invigorating and prophylactic beyond description. Further, I challenge the medical fraternity or any mother to point out a place where children have died from diphtheria or scarlatina anginosa, etc., where onions were freely used.

To Perforate Earthenware.

A method which is said to be very satisfactory is recommended by Professor Stuart as follows:

Instead of a drill a soft copper rod or pipe is used in the lathe, it being fed with a mixture of powdered emery and linseed oil. The emery is embedded in the copper by the friction, and cuts right through the hardest material in a very short time.