

AN IMPROVED ARTICLE FOR PLASTERING, TILING, AND CEMENT WORK.

The illustration represents a novel description of moulds and plaster slabs, and method of making the slabs, to be attached to the interior or exterior walls of buildings and their ceilings, for the reception of brown and finishing coats. This slab is primarily designed as a foundation for plastering, in which respect it is designed to be superior to all other materials, taking the place of the ordinary wood lathing and the various forms of metal lathing, while it is also adapted as a foundation for cement work, and for making a permanent and effective fireproof floor on top of boarded floors. The making of these slabs forms the subjects of two patents, issued to Mr. Thomas Curran. The moulds in which they are made are of heavy rubber, formed by means of suitable die plates with the requisite undercut longitudinal bars and marginal borders, whereby the mould can be readily removed after the plaster which has been poured into it has set. Fig. 2 shows a portion of such a mould, Fig. 1 representing its removal from the hardened plaster, and Fig. 3 shows a section of the formed slab, which is preferably made four feet long, sixteen inches wide, and five-eighths of an inch thick, the dovetail ribs on its surface rising about a quarter of an inch from the body of the slab. In the composition of the slabs, plaster, lime, alum, and fiber are used, the fiber being saturated with pyrodine liquid to render it fire and water proof. It has been found in practice that coconut fiber is a strong and excellent material for the purpose, while being also comparatively inexpensive. The slabs thus made have sufficient elasticity to permit of some bending, while they afford a good hold for the large-headed galvanized nails which are preferably used in fixing the slabs in position on the studding or beams of walls and ceilings. These slabs afford especial facilities for obtaining fine cut stone effects with Portland cement on the exterior of frame houses, and they can be used as a foundation for tiling on walls, ceilings, and on top of boarded floors. The moulds are also adapted for producing dovetail grooves on all kinds of plaster blocks. They have been thoroughly tested by the inventor, who is a practical builder, and to whom application for further information may be made, at No. 135 Broadway, New York City.

AN IMPROVED LUMBER DRIER.

The illustration represents a simple and durable construction, which forms the subject of a patent issued to Mr. La Fayette C. Van Duzer, adapted to facilitate the drying of lumber by means of the heat and gases of a furnace, or by hot air only generated by the furnace. The ash pit of the furnace is preferably located underground, and connected with a side entrance, and the fire box is surrounded by a heating chamber adapted to be directly connected by a damper at each side with the interior of the fire box. Flues, each having a damper, lead from the fire box to a transversely arranged flue within the heating chamber, the latter flue extending to the outside in both directions, and having upwardly turned ends, to carry off the smoke and gases. A channel from the heating chamber extends under the front end of the floor of the drying kiln, and the rear end of this channel connects with a second channel covered by metallic plates forming the kiln floor, the plates being supported on posts which also support rails for the cars carrying lumber to be dried. There is a vertically sliding door at each end of the kiln, and at its front end is a chimney with a damper. The plates forming the top of the second channel have openings in their rear ends, so that the hot air passes to the rear of the kiln before entering it, passing thence through the lumber and out through the chimney at the front end of the kiln. Below the chimney, in the floor of the kiln, is a transverse opening, communicating with flues in the chimney and controlled by a damper, so that by opening the latter damper and closing the regular chimney damper a lower draught is obtained and the hot air is made to circulate more thoroughly around the lower portions of the drying chamber. The furnace is adapted to burn waste lumber products, such as slabs, sawdust, shavings, etc. The cars loaded with lumber are first moved into the front end of the kiln, where they are exposed to a low temperature, and are thence moved gradually to the rear end of the kiln, into a higher temperature, whereby the lumber will be evenly dried without warping, when the cars are passed out through the rear door. For

further particulars relating to this invention address the Clay Lumber Drier, room No. 418, Odd Fellows' Hall, St. Louis, Mo.

The Curability of Cancerous Tumors by Interstitial Injections of Bichloride of Mercury.

According to the Paris correspondent of the *Medical Press and Circular* for September 17, 1890, Professor Poucel, surgeon to the Marseilles Hospital, suggested, in 1884, that, in order to explain the production of cancer, it would be found at no distant date that the microbe of cancer would be discovered by the micro-



CURRAN'S GROOVED PLASTER SLAB.

scope. Since then efforts were made to prove the parasitic origin of the disease, and some pretended to have discovered the new microbe, but soon afterward the pathogenic value of the bacilli, and it was even said that the micro-organism was not necessary to explain the clinical phenomena of cancer. Assuredly the transport of living cancerous cells by the veins, and above all by the lymphatics, would produce homologous tumors wherever those cells could find favorable conditions for germination. This mechanism, although explaining the generalization of the tumor, does not clear up its cause. The bacilli of cancer, as in the case of tubercles, exacts certain conditions which are transmissible in an hereditary sense, and which constitute the predisposition and the tendency. When these exist, the rapid growth of these micro-organisms becomes possible, and through their contact the epitheliums become inflamed, proliferous, and deformed, characterizing cancer. It was with this idea that he undertook a series of researches at the hospital of Marseilles. He had shortly before obtained a prompt cure of a malign pustule of a very bad form by injections of corrosive sublimate around its base, and these injections proved to him, first, that the bichloride had no ill effect on the tissues; and, secondly, that it was efficacious against microbes absorbed through the lymphatics. It appeared to him, then, that it was

the ulceration occupied the under part, giving exit to a fetid and abundant discharge. The axillary glands were as yet untouched, the tumor was free, and the general condition of the patient good. On the same day of her entry six injections (the half of an ordinary subcutaneous syringe each time) of a solution of bichloride of mercury (1 in 1,000) were made into the most indurated points. No salivation followed, but the breast became a little inflamed. A month subsequently the woman returned, when it was found that the tumor had diminished in volume, and another series of injections were made, which were renewed four days subsequently. The decrease of the tumor was much more marked, and the fetid discharge had ceased. Unfortunately, a few days afterward, the patient was carried off by an attack of angina pectoris, to which she had been for several years subject. Two other patients were treated without success, but both of whom were very advanced in age, one of them being 81. The fourth patient was a retired officer, M. Poucel was called to him for a large phlegmon in the groin. After incision, a hard ganglion, of the size of a nut, was discovered, and as the man had had some dozen of years previously an indurated chancre, he was ordered pills of proto-iodide of mercury. The tumor increased, in spite of this, rapidly, and soon attained the size of a large goose egg. The son of the patient, a navy surgeon, was called in in consultation, and the cancerous nature of the affection was fully recognized. The first treatment was replaced by injection of the sublimate solution, a series of six every two days. At the end of three weeks all trace of the tumor had disappeared, and no return had taken place

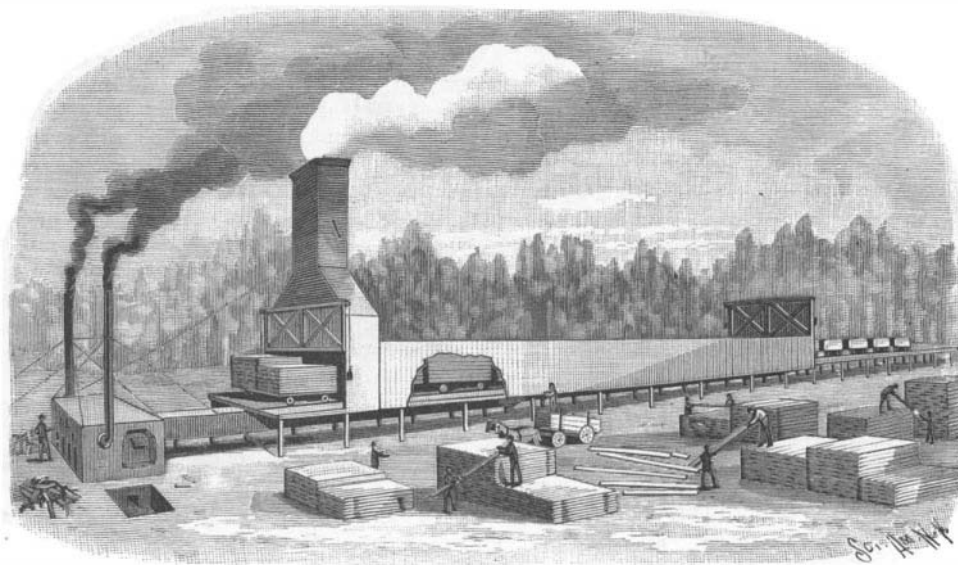
up to the present. Curious to say, the son had noticed in his own groin two small ganglions, which had dated three years back. However, about a year ago they became much more enlarged and harder, in spite of every possible treatment. Struck with the result of the injection in his father's case, he tried them on himself, and for that purpose injected four half-syringefuls daily. At the end of a week these glands disappeared. A sixth case was that of a man who said that he had something wrong with his rectum, as he had often remarked a fetid bloody discharge from the anus. Examination revealed the existence of a malignant tumor. Four injections were made daily, and in twenty days the cancer had *vanished!* The seventh and last case was that of a woman, aged 58. She was very emaciated, and presented in the left breast a hardened nodule tumor about the size of a large walnut. There was no retraction of the nipple nor any affection of the ganglions. Two injections were made, and renewed eight days subsequently. Three months afterward Dr. Poucel revisited the patient, when no trace of the tumor could be found. Four more patients are at present undergoing the treatment, and a notable progress is marked in each of them. In concluding, the author says that he does not pretend that the real treatment of cancer has been found, but what he can affirm is that certain tumors of a *cancerous appearance*

are susceptible of being removed by the injections in question, and the chances, as may be conceived, are much greater when practiced at the commencement. He used the words *cancerous appearance* advisedly, as in some subjects tainted with hereditary syphilitic tumors resembling cancer are observed. However, in these cases iodide of potassium is the specific, whereas it has no effect on the true cancer. Several of his patients were treated, as stated above, by that drug without result. Therefore, it may be regarded as almost certain that all the cases mentioned were real cancers.

Dangerous to Live.

Are we safe nowhere from bacteria, some one inquires, not even when we are sealed up in a vacuum in a glass case? Not content with showing us that horrid monsters claw and fight in every drop of water we drink, scientific gentle-

men have now been microscopically overhauling a hailstone and finding that an infinitesimal speck of the ice contains no less than 400 to 700 bacteria. They may be the germs of smallpox, scarlet fever, leprosy, naughtiness, and crime. Not even ice will kill them, for they thaw out and wriggle ferociously. The invention of the microscope revealed wonders to man, but it has made life a burden to nervous people. Nothing is free from microbes any more, nothing is pure, except the benevolent motive of one, says the same inquirer, who lends a friend five dollars when he never expects to get it back again.



THE 'CLAY' LUMBER DRIER.

quite rational to apply this treatment to cancer, or at least to tumors of a cancerous aspect of which the microbe (if there be one) is transmitted by the same means. Seven patients have already been submitted to this treatment, of whom the details are here given. The first was a woman without any syphilitic antecedents, whom he had treated for a long time with iodide of potassium. In the month of February last she entered the hospital for an ulcerated cancer of the right breast, which commenced ten months previously. The tumor was hard, uneven, and occupied all the mammary glands; the nipple was retracted, and