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NEW YORK, SATURDAY, NOVEMBER 26, 1887.

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 By Professor Lunge.—A simple apparatus, designed to supplant coke towers and similar structures in chemical works.—1 illustration.

THE SIEMENS REGENERATIVE FURNACE PATENT IN der consisting of a mixture of asphaltum, colophony, THE SUPREME COURT.

William Sellers and others, of Philadelphia, for infringement of this famous patent. The defense hinged have decided that the English patent is for the same served.—Photo. News. invention as the American one of later date, and hold that the latter expired seventeen years after the date of the English patent. The decision was rendered November 14.

and the driven well suit, the ground is clear for the ren- and considerations. Some years ago a rock lighthouse dering of their opinion in the great telephone suits. It on the coast of Ireland was struck and damaged by is now eagerly watched for, and is expected every Mon-lightning. An engineer was sent down to report on day. It will be one of the most important decisions the occurrence, and as I then held the honorable and which that court has ever been called upon to render, responsible post of scientific adviser to the Trinity and will have a direct and very powerful bearing upon House and Board of Trade, the report was submitted the value of the telephone companies' stocks. It will to me. The lightning conductor had been carried affect its value to an extent of many millions of | down the lighthouse tower, its lower extremity being dollars.

THE DRIVEN WELL PATENT INVALID.

Some months ago, the United States Supreme Court rendered a decision in one of the famous driven well suits, in which the reissued patent granted to Nelson W. Green was declared a good and valid patent. This seemed to indicate a more favorable view of reissues than that court has lately taken. But following on that decision comes a new one, rendered by the same court in another case. The last decision declares the Green patent to be invalid, and probably disposes forever of all arrears of dues. The patent has expired by limitation, and only those who made wells prior to January 14, 1885, were liable for royalties. This decision exempts even them.

The decision, which was rendered on the 14th inst., is based on the record in a case, Nelson W. Green et al. against George Honey, which was originally brought in the Southern District of Iowa. The record went to show that the invention was in practical public use in Cortland, N. Y., more than two years before Green applied for his patent. This evidence was accepted as conclusive by the Supreme Court, and their decision was, it is understood, based largely on this point. As yet no copies of the text of the opinion, which was delivered by Judge Blatchford, have reached this city. It is of interest to note that the Circuit Court decision was confirmed by the higher tribunal: the decision appealed from also found the patent to be

ROADSIDE PLANTING.

The subject of securing shade for roads by planting trees at their sides has within a few years been receiving considerable attention in Europe. In Belgium especially the work has been taken up with much interest, and the economic results ascertained. Each tree in that country is estimated at a cost of 2s. 6d., or about 60 cents of American money. This seems a pretty high figure for a European country, yet further estimates go to prove that such planting is a most profitable investment. Since 1881 it is claimed that the trees planted have increased to several times the value of the capital originally invested in them. Larch, spruce, and fir were largely used in these Belgian plantations.

At the Manchester meeting, in the present year, of some of our New England cities should be followed sia, and Austria is furnished by the United States. and farmers in improving the appearance of the shadeless roads, and at the same time making a favorable investment, not of such distant realization as is usually supposed.

Transfers for Zinc Etching.

and Albert, of Vienna. With the usual method of making transfers in greasy ink, it happens somethe zinc plate, that the lines or dots of the image will shipped to all parts of the civilized world. be crushed and become broader. To prevent this, Jaffe and Albert have modified the process in the folafter the paper has been dried, it is dusted with a pow-half year ended 31st October.

and wax, then the whites of the paper are freed from A suit was brought by the Siemens Brothers against any adhering powder with the aid of a pad of cotton, and an alum solution is applied, in order to tan the gelatine on the paper, so that it may become hard, upon the limitation of the American patent by the and not give way afterward in the transferring prolapse of a period of seventeen years since the date of cess. The transfer is now warmed to a certain degree, an English patent of prior granting. The English paland transferred to the zinc plate. It is not necessary tent was taken out on July 19, 1861, and the claim was to coat the print with greasy ink, and this is impormade that the American patent of subsequent date ex- tant. In this case we have a resin image on the metal pired in 1878. No evidence was produced to confute plate, which offers sufficient resistance, so that we Sellers' statement that he never used the invention may commence with a strong first etching, by which prior to this date. The United States Supreme Court | the finest dots and lines of the image will all be pre-

Professor Tyndall on Lightning Conductors.

Prof. Tyndall, writing to the London Times, says: "Your recent remarks on thunderstorms and their Now that the Supreme Court has disposed of this effects induce me to submit to you the following facts carefully embedded in a stone, perforated to receive it. If the object had been to invite the lightning to strike the tower, a better arrangement could hardly have been adopted. I gave directions to have the conductor immediately prolonged, and to have added to it a large terminal plate of copper, which was to be completely submerged in the sea. The obvious convenience of a chain as a prolongation of the conductor caused the authorities in Ireland to propose it, but I was obliged to veto the adoption of the chain. The contact of link with link is never perfect. I had, moreover, beside me a portion of a chain cable through which a lightning discharge had passed; the electricity in passing from link to link encountering a resistance sufficient to enable it to partially fuse the chain. The abolition of resistance is absolutely necessary in connecting a lightning conductor with the earth, and this is done by closely embedding in the earth a plate of good conducting material and of large area. The largeness of area makes atonement for the imperfect conductivity of earth. The plate, in fact, constitutes a wide door through which the electricity passes freely into the earth, its disruptive and damaging effects being thereby avoided. These truths are elementary, but they are often neglected. I watched with interest some time ago the operation of setting up a lightning conductor on the house of a neighbor of mine in the country. The wire rope, which formed part of the conductor, was carried down the wall, and comfortably laid in the earth below, without any terminal plate whatever. I expostulated with the man who did the work, but he obviously thought he knew more about the matter than I did. I am credibly informed that this is a common way of dealing with lightning conductors by ignorant practitioners, and the Bishop of Winchester's palace at Farnham has been mentioned to me as an edifice 'protected' in this fashion. If my informant be correct, the 'protection' is a mockery, a delusion, and a snare."

The Peppermint Crop Abundant.

Wayne County, N. Y., is noted for its great growth of peppermint, and this year the crop is very large, it being estimated by a correspondent of the Graphic that it will yield over 200,000 pounds of oil. The size of the crop is a detriment to the growers, because the the British Association for the Advancement of Science, | oil is lower than it has been for thirty years past. The the subject of forestry was discussed, and tree culture usual price is \$2 a pound, but the present quotation was strongly recommended to the English farmers. In is \$1.80. Aside from the product in this one county this country the subject of forest preservation is studied in the State of New York, three counties in Michigan more every year, and legislation is applied to saving yield a small product. The crops in these two States our woods, and it is to be hoped that very beneficial comprise nearly all of the peppermint that is grown in results will follow the work already in hand. But in the world. Germany produces some, but more is sent preserving forests, only half the subject is covered. from this country to Germany than is brought this way. New trees should be planted, and the example set by Nearly all that is furnished to England, France, Rus-

The harvest begins usually in the last of August taken to the distillery. The process in distillation continues until the last of October. The plant is brought from the fields in large wagons and tightly packed in steam-tight vats. The steam is let into the bottom of the vat, and the oil from the plants thus volatilized. The oily vapor and steam pass through A new method of preparing transfers for the zinc a condensing worm into a receiver, where the oil, etching process has lately been introduced by Jaffe being lighter than water, is dipped off, and is then put up in tin cans holding twenty pounds and taken to the refinery, where it is refined and put into twenty-one times, in transferring the developed greasy image to ounce bottles, eighteen bottles to a case, labeled, and

> -----SOUTH OF ENGLAND TELEPHONE COMPANY.—The lowing manner. The image on the bichromated paper | directors of this company have declared a dividend of is developed in the usual manner with greasy ink, but, 6 per cent per annum on the preference shares for the