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STATE LAWS AFFECTING PATENTS.

power of a State to tax goods manufactured under a patent munity. is instructively discussed in a very recent Supreme Court decision. Other aspects of the question are not unfamiliar. Every reader knows that the general subject of granting and gress, and that the States cannot directly interfere with a this prohibition extend? Very clearly, just as a State cannot issue a patent, so it has no authority to decide whether one is valid or to punish infringements. On the other hand, a contract about a patent.

As the States need to be constantly on the watch for new cussion has been that the patent right itself, being a privilege right. directly granted by Congress, although a species of property, cannot be taxed by a State; for if these rights might be taxed at all, they might be taxed so heavily as practically to crush them. No authority can be conceded to the States which might result in enabling a legislature to destroy a privilege which Congress has been authorized to grant. Thus, also, a State cannot, by taxes, hinder the sale of a patent right or the exercise, under it, of the privilege of manufacturing. The combination of different materials to produce a new result or an old result better or more rapidly, which constitutes the invention, cannot be forbidden by the State; and if it cannot be forbidden, it cannot be taxed; for to tax is to forrestriction upon the taxing power ceases. The right conmanufactured article; it does not take the tangible property in which the invention or discovery may be embodied out of

The case above mentioned, by which the authority of the States to tax the manufactured article has been established, manufactured outside the State, without obtaining a license drummers, and traveling salesmen sent throughout the comparatively new regions of the country to represent the large manufacturing establishments in the older parts. They have no doubt, considered a healthful encouragement of domestic manufactures and trade; while the view at the East and in the Federal courts has been that they involve an objectionable interference with the uniformity and freedom of commerce. In Virginia a traveling agent for the " ${\bf Singer\ sewing\ }$ swindle is completed. machines," representing the Singer Manufacturing Company in New York, continued his sales without complying with the law. He was prosecuted and fined \$50. He contested this fine in the State court; one of the arguments urged in upon the sale of a machine patented under the laws of Congress. The Virginia court decided against him, and the forms a reason why Congress should pass a proper law. Supreme Court has now pronounced the decision correct, saying that the grant of letters patent for the invention of the sewing machine does not prevent a law imposing a license fee for making sales of particular machines made under it. It is, however, noteworthy that the Supreme Court pronounced the Virginia law invalid for another reason, viz. for taxing the machines merely because made in another

The States have sometimes seen reason to legislate for the explosions. So, a patent right for the manufacture of a poison does not impair the right of a State legislature to control the sale and use of the article. The ownership of an invention secured to the inventor by his patent cannot be impaired by local legislation; but he must be contented to enjoy results of research used by modern scientists and the many results results.

The Future Development of Electrical Appliance. Lecture by Pror. J. W. PERRY before the London Society of Arts.—Methods and units of electrical measurements.

Researches on the Radiant Matter of Crookes and the Mechanical Theory of Electricity. By Dr. W. F. GINIL.

Economy of the Electric Light. W. H. PERECE'S Experimenta Investigations.

On the Space Protected by a Lightning Conductor, By WM. H. PREECE.—5 figures.

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PREECE.—5 figures.

PRINCE SEARCH SEA gress gave them a right to sell which the local law could not gainsay. But such claims have been repudiated in the courts. Neither the patent laws nor internal revenue laws

> * The decision of the Virginia Court of Appeals is published as Webber's case, 33 Gratt. 898; and that of the Supreme Court as Webber vs. Vir-..... 4598 ginia, 12 Cent., L. J., 488.

were intended to displace what is called the "police power" Can the State legislatures exercise any control over deal- of any State; by which term is meant that general authority, ings under patent rights? This question is one of increasing necessarily vested in every government, of providing for the importance, and presents many aspects: one of which-the health, good order, peace, and general welfare of the com-

A distinct decision upon this branch of the subject was rendered about two years ago relative to the "Aurora oil." This oil was manufactured under a patent right. There was, enforcing patent rights is under the exclusive control of Con- however, a law of the State (Kentucky) which required all coal oils and like burning fluids to be inspected before sale; privilege which Congress has granted. But how far does and punished the offering for sale of any which the inspector condemned as below the standard for safety. A dealer who sold a parcel of the Aurora oil which had been condemned, claimed that he had a right under his patent to sell the oil the great mass of ordinary contracts may come under State in any part of the United States, and that no State could authority, notwithstanding they spring in some way from a forbid him. But the Supreme Court pronounced this claim patent right; thus State courts may decide the meaning of inadmissible, saying that the patentee's right in the manuan assignment, or entertain a suit for damages for breach of factured article must be enjoyed subject to the complete and salutary power, with which the States have never parted, of so defining and regulating the sale and use of property as to subjects of taxation from which they may derive revenue for afford protection to the common people. The ownership of their increasing expenses, and the development of invention, the manufactured article is altogether distinct from the right under the patent laws is steadily embracing more and more to the invention or discovery; the invention is protected by of the lucrative manufacturing business of the country, a national authority against all interference; but the use of the claim to impose taxes on patent rights and dealings under tangible property which is manufactured by means of the them has been very natural. The general result of the distinvention is not taken out of State control by the patent

In so far as the decisions treat a patent right as superior to State laws, they evidently throw upon Congress the duty and responsibility of passing all laws which the interests of the general public demand. And it is scarcely to be denied that the subject has not received proper attention. There is one class of frauds from which farmers and dwellers in rural districts, especially foreigners not well acquainted with our language and business customs, have suffered extensively. It has been common for agents to travel through small towns and villages, offering to sell county rights, or to appoint local agents, for some new and patented invention. There are various forms in which such business is done; sometimes the bid unless the tax shall be paid. But somewhere here the traveling salesman offers to furnish the manufactured article in quantities for sale; sometimes he offers a license to manuferred by the patent laws upon an inventor to exercise or sell facture within a limited territory; sometimes an agency to to another the invention he has made does not extend to the sell rights. But his negotiation always tends toward obtaining a negotiable note, or something which he can turn into a note, from one of the "solid men" of the place. Inthe operation of the general tax or license laws of the State. deed there are several instances on record in which a person who could not read has been led to sign a note by assurances that it was only a paper appointing him agent; or in which arose in Virginia, under a law of the legislature, which made one who could read has been enticed to sign a paper ingenit a criminal offense to sell anywhere in Virginia things lously printed as an ordinary contract, but capable of being changed into a negotiable note by cutting off one end of it. fee, for which a tax must be paid. Such laws have often If the note were held when it fell due, and sued by the agent been passed in late years, and have borne somewhat heavily himself, the honest villager who made it would have some upon all kinds of sales, such as are usually made by agents, | chance of obtaining justice; for if he could prove the fraud he would be released. But the agent never keeps the note. When it falls due, the maker finds that the agent almost immediately got the note discounted and went on his way to been enacted chiefly in the West and South, and are there, parts unknown. The note is owned by "an indorser for value and without notice." Now a familiar rule of law forbids the maker of a note to make defenses which would be perfectly good against the payee, when the note is presented by one who bought it innocently before it was due. Thus the

Congress has taken no pains to suppress these fraudulent dealings; yet when some of the States have endeavored to protect their citizens against these traveling patent salesmen, the objection has been made that their laws are unconstituhis behalf being that the State could not impose any burden, tional; that the manner of selling a patent right is wholly within the care of Congress. This is probably true; but

WATER GLASS.

In 1640 Von Helmont discovered that when in the preparation of glass from sand and alkali an excess of alkali was used the glass dissolved in boiling water, but it was not until 1828 that water glass as now known was prepared and practically utilized by Von Fuchs, in stereochromy or solid color painting, in mural and monumental decoration, and for the preparation of various cements and artificial stones. Water protection of their people against noxious or dangerous articles, and the question has arisen whether a right granted by possesses, when properly prepared, many unique and valuable Congress for manufacture or sale exempts the article from properties. In cold water it is nearly insoluble, or dissolves very slowly. In boiling water it dissolves with facility and remains in solution when the latter has cooled. Water containing 30 per cent of the glass in solution is of a sirupy consistence, and may be used as a transparent varnish on many substances; on drying it forms a glassy coating that resists moisture and change of temperature very well. It has been used extensively as a vehicle for certain pigments to form paints known as silica paints. These have the advantage over all paints or varnishes of being incombustible, and when used on woodwork serve in a measure to prevent sudden ignition of the wood by contact with flame. They are also serviceable in painting theatrical scenery, cloth saturated with a dilute water glass varnish becoming uninflammable. The pigments used in these paints are: zinc white, barytes. chrome green, chrome oxide, chrome red or orange, cobalt ultramarine, zinc yellow, ultramarine, cadmium sulphide, ocher, etc. Chalk mixed with water glass forms on drying a very compact stone as hard as marble; bone ash, zinc white, and magnesia with water glass form similar stones. Ransom's artificial stone is prepared by mixing sand with water glass solution to form a plastic mass which is pressed