Scientific American.

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Judiciary System of the United States.

We have now before us a petition which is to be presented, in a short time, to the Senate and House of Representatives, praying for a reform of the United States Judiciary System. The reforms embraced in the petition are, 1st "the election of Judges by the people for a limited number of years. 2nd, a law prohibiting the issue of a writ of injunction unless the complainant shall first give security to indemnify the defendant for all loss and damage. 3rd, that the defendant may stay or raise the injunction on giving like security. 4th, and that all issues of fact, both in equity and law, shall be tried by jury."

The reasons set forth for such changes in our Judiciary system are of a very peculiar character: the Judges are appointed tor life, and it is said they have assumed power over both law and facts, in granting injunctions without trial by jury, and without adequate security to the party enjoined, all of which is contrary to the spirit and true character of our government, is of despotic origin, destructive of business security, and oppressive to citizens. We have expected such action for some time, although we have done nothing to bring the same about by personal effort. We supposed that some striking case would make the injured parties seek redress by legislation; and now the wedge is about to be thrust into the whole United States Judiciary system, as at present constituted and conducted. We cannot say that we advocate the electing of the judges, but we believe that their appointment for a limited number of years, and no re-appointment ever allowed, would be a judicious reform.

The great exciting cause of this action, at present, is the tyrannical disposition which has been displayed in some cases, by some of ers we would desire to direct public attenthe judges granting certain injunctions contrary to sound legal authority.

In July, 1850, an able article appeared in the Southern Quarterly Review upon this very subject, namely, the granting of an injunction by Judge Wayne, against a patentee. without allowing a trial by jury. The petition before us has sprung up from decisions made by Judge Kane, of Philadelphia. He has granted injunctions without any trial at common law, when the conflict was between two opposing patentees, and he has judged as to facts and law both. This, according to Curtis (sec. 338-Note), is wrong; it says,-' where there are two conflicting patents, apparently for the same thing, the grounds of undisturbed possession on which injunctions are granted, cannot exist." It is our humble opinion that great good would be done to patentees and others, if our U.S. Judges would send every patent case to a jury, if the defendant desired such a trial. Our Judges are more despotic in their decisions than those of the English Bench. Sir L. Shadwell, Vice Chancellor, said "he did not recollect a case where a defendant had stated his wish to try the question at law that the Court had refused to give him the opportunity. This is very different language from that held by some of our Judges.

it effective and profitable, as invented by Mr. We understand that secret efforts are now tanning in Albany. He is an English dyer by tween opposing patentees, and the questions in-Pirrson, is; and the saving of fuel, by its use, being made in Washington to get a special trade, who resided for some time in Albany, volved are those of infringement; now in eveis over sixteen per cent., of coal. This has bill passed renewing the patent of John Goldwas not successful there, got a legacy left him ry case of this kind it should at once be in England, went back and now follows after ing, of Dedham, Massachusetts, for an imbeen fairly tested, in the Albatross, during the sent to be tried by a jury of competent men, | past year, in her passage to and from Charlesproved wool condenser, which was granted the tanning business, with some Yankee imand not left to the decision of the Judge; no | ton. The condenser is very compact, and does in 1826, and which has been in public use for provements. How some people do keep postinjunction should be granted until a trial is not occupy much room, and we cannot but detwelve years. It is supposed, from the seed behind in the news of the day. had by a jury. sire that the owners of steamships would excrecywith which those interested have moved, These are our opinions, and we are confiamine it with candor. We cannot describe Adamantine Candles. that many members of Congress have been dent the expenses would be less to all parits peculiar difference from that of Hall's, &c.; We had supposed that the most beautiful brought to tavorable terms, and that the bill ties, and for a certainty justice would be more we have not room to do so, and, beside, every stearine candles were manufactured at the may pass very quietly, and then the woolen sure, and there would be no room for accusing apparatus must be judged by its practical West, but we have a sample of a block of manufacturers will have to look out. There the Judges of partiality and making decisions working-the only test of its utility and ecostearine, and some candles before us, manufac- can be no doubt but the President will veto prejudicial to the rights of any one party for nomy. There can be no doubt but an apparatured for George H. Folger, of Nantucket, by the bill if passed, if his attention be called to the sake of benefitting another party. tus of this kind is much to be desired; the H. E. Rogers, of South Manchester, Conn., the subject, as he his an old woolen manuonly questions to be settled, are those of its which surpass all the candles we have ever facturer, and would see at once that the bill The Reformed Patent Bill. economy and working qualities : and upon the seen. Mr. Folger is a manufacturer of sperm was for oppressing, not advancing, improve-We have been informed that Senator Nortestimony of Mr. Thompson, the Albatross has and adamantine candles and his candles sell at ments in the arts, and therefore unconstituris's Bill, to amend the Patent Laws, is exresolved these questions in favor of a saving of higher prices than others of the same kind, 35 tional. It is believed that a number of crafty pected to pass both houses and become a law sixteen per cent. of fuel and the prevention of cents per pound being received for them. lawyers are at the bottom of this scheme but in the course of a few weeks. We hope he all incrustations: the whole economy cannot They are white, like snow, very hard, and we believe they will be defeated in their reprehas amended the Bill so as to strike out that be less than 25 per cent.; this is a geat gain. having tested their burning qualities, we find hensible schemes.

absurd clause in reference to the products of patented machines. The new English Patent Bill provides for foreign propellers coming into English waters, also for ships using patent machines, they will meet with no obstruction in British waters; this is sensible, but while the people there are becoming liberal in such matters our statesmen seem to be going backward.

The Albatross Propeller- -Pirrson's Condenser.

This class of steamships is becoming more common on our waters, their economic qualities are beginning to be better understood. The city of Philadelphia has enjoyed a good reputation for building propellers; still, we have thought it strange that the only steamships sailing regularly between that city and Europe were built abroad—they are foreign steamers; we allude to "The City of Glasgow" and "The City of Manchester." A very fine screw steamship, named the "Albatross," built in Philadelphia, has come to our waters and become a New York ship. On Wednesday, last week, she made a trip down our Bay, with a number of invited guests, and we were happy to form a part of the company. This vessel is a beautiful cratt, and has many new points about her worthy of consideration. The Albatross was designed and constructed under the superintendence of her owner, Ambrose W. Thompson, Esq., of Philadelphia, and she does credit to his inventive qualities. She formerly belonged to the line of steamers running between the cities of Philadelphia and Charleston, but the line has been discontinued for want of business. She has a propeller named "Thompson's parabolic propeller." It is geared to make nearly two revolutions for one stroke of the engine. The screw is of an expanding pitch. The speed on the trip was at the rate of about 12 miles per hour. She is fitted with the Patent Condenser, invented by J. P. Pirrson. C. E., of this city, and to this apparatus, for marine steamtion. There is a great loss of fuel and a great

wear of boilers, by the use of the salt water, which is employed by all our steamships. When the water in the boilers is saturated to a certain degree, the brine has to be run off; this involves a great loss of heat. In the course of time serious incrustations gather in the inside, and this involves a loss of heat also, as the scale is a non-conductor. The incrustations have to be removed every voyage, and the boilers cleaned out, and this involves another heavy expense. If pure water could be employed at sea, all the heat which escapes with the brine, and all the evils and troubles of incrustations would be saved and remedied. But how can this be done? To carry fresh water for a voyage would require huge tanks; in fact, the vessel could not carry enough to serve for one voyage of a few days. If we consider that all the water employed condense the steam, and use it over again for boiler feed? To do this, salt water would ciple of this condenser for sea steamers. The

The Crystal Palace. This famous structure, which has to be re-

moved from Hvde Park, is not destined to be torn down and broken to pieces like a potter's vessel; it is to re-erected and devoted to a noble object. It has been purchased for about three hundred thousand dollars, and is to be removed to an appropriate site, at Sydenham, near London. It is to be placed in the midst of a park of 150 acres, which is to be planted with a specimen of every tree which can be grown in the open air in England. The building is to contain a winter garden of 18 acres, filled with the choicest plants and flowers. There are to be sculptures by the chief living artists, and casts of the most celebrated works of antiquity. Geology and mineralogy will receive their appropriate illustrations; while specimens of the most striking costumes and manufactures of the various nations will be laid out, as at the time of the Great Exhibition. Not the least interesting part of this splendid spectacle will consist of samples of machinery such as those which were seen at work last year in the northern section of the building, when it stood in its full glory in Hyde Park. Had this building been made of brick, as was first proposed, it would have been nothing but a heap of rubbish when taken down; but it can be erected now as well as at first. This is a strong argument in favor of iron buildings. We have been informed that all the stock for the New York Crystal Palace has been subscribed. "Go a-head," gentlemen.

American Rifle Shooting.

Some time ago while commenting on rifle shooting, we stated, as is asserted in Mr. Chapman's work, that a first rate American rifle with a telescope, will throw all its shots at 220 yards into a circle of 11 inches diamediameter. "No European shooting, we believe, can compare with this."

The London Mechanics' Magazine, of May 15th, says, "yes it can," and quotes the following extract from the letter of an officer serving in the Caffre war:

"I have seen, I suppose 100,000 rounds fired Caffre fire to nearly the same amount, and I say that an old flint musket in the hands of a Caffre, who puts in about 6 drachms of powder, will kill a man at 800 vards : a regulation firelock, charged with 41 drachms ditto, at 550 yards; a common rifle charged with 21 drachms, with conical ball hollowed out at the base, will kill at 1,200 yards."

This we do not dispute, for our rifles can carry as far, but can any European rifles show open to the world, and will afford a good opportunity of deciding the merits of many rifles. Send over your Minie rifle, gentlemen.

A Yankee Tanner.

Some time ago we published an article from the London Mechanics' Magazine, giving an the sun at all-it fades in a few minutes. goes into steam, and this steam, when condenaccount of Mr. Laycock, formerly of Albany, Wool, if prepared with alum and tartar, takes sed, is pure water, whether made from salt or fresh water, the reflection arises,-why not N. Y., having taken out a patent in England, a fine citron yellow. It stands washing very whereupon a cotemporary of last week, sput- well, and also the sun and air. This acid ters out the wonderful piece of news of a does not give any color to cotton. It is have to be used for condensing, and it must be Yankee tanner, formerly of Albany, but now an improvement in the use of nitric acid applied to the outside of the condenser, to of Doncaster, England, having taken out a pacool the steam by radiation. This is the printent, and gives the article as we published it. faint yellow to a white silk. It happens, however, that he is not a Yankee principle is not new; but the manner of making Woolen Manufacturers Awake. tanner, nor did he follow the business of A great many patent cases are conflicts be-

they are not liable to run, but burn clean and free from guttering.

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Patent Business.

For a number of years we have been honored with the confidence of a large class of inventors, and have been solicitors for, perhaps, as many patents as any Agency in the world, and we think we may safely say that we have conducted more applications at home and abroad than any other concern, during the same period. Commencing May 4th, and ending June 1st, 1852, (4 weeks) 22 patents were issued to inventors, whose papers were prepared at this office. The whole number of patents issued during that period is sixty-three, -thus giving us a fraction over one-third of all the patents issued, and establishing a great preponderance in favor of the "Scientific American Patent Agency." Still, we believe that most, if not all of the respectable Patent Agents, in this and other cities, are doing a large business, and so far as we can judge, the season is prolific with invention.

A New Yellow Dye.

M. Guinon, an eminent dyer of Lyons, France, has succeeded in dying silk light yellow by means of "picric acid." His attention was first directed to the subject by noticing the yellow color which it imparted to the skin. This acid is made by him in the following manner:-Into a good stone-ware vessel, able to contain three times the quantity employed, are put three parts by measure of commercial nitric acid, which is heated to 140° Fah. The vessel is then removed from the fire and 1 part by measure of coal oil is added through an earthenware tube, tapering at its lower end, and dipping into the acid. Each portion of oil, on entering the acid, causes a violent re-action, heat being generated, and ter, and at 440 yards into a circle of 8 inches carbonic acid and nitric oxide given off; should the liquor threaten to run over, the addition of oil must be suspended, and the whole cooled with a little nitric acid. The oil is then all poured in, and when this is done the greater part is already converted into picric acid. but a portion yet remains as a reddish resinous mass. Three parts more of nitric acid are from one firelock, and have seen the effect of then added, and the liquid is boiled to a syrup. It must not be suffered to dry, or it will ignite with violence. The syrup thus formed solidifies into a yellow paste when cooling. This is then boiled in water for 20 minutes, and suffered to cool, when the picric acid forms in crystals on cooling, and the residue is nitric acid and some resin. It can be purified like all salts by repeated crystallization. To purify it perfectly it must be mixed with ammonia, and precipitated with hydrochloric acid, such close shooting. In our last number we but this is not required for dyeing. Silk morpublished the challenge of Mr. Sharp; it is danted with alum and tartar takes a fine straw color by being handled in a weak solution of picric acid. It can be washed severel times, but it does not stand alkalies or acids, but it is a valuable color, as it endures the sun and air; it is well known that tumeric, which is used to color a number of yellows, cannot stand which has often been used to give a kind of