Scientific American

NEW-YORK, JANUARY 31, 1852.

### Prizes for Inventions.

We would call the attention of our inventors to an advertisement on our proper page for that purpose. The offers are for useful improvements connected with Railroads. We believe them to be fair, generous, and honorable to Mr. Ray. Having said this much, we cannot help throwing out some remarks to combat an idea which seems to be entertained by some, viz., that "the arts are now so perfect and complete as to leave little room for further improvement." This is not so, and never will be, with respect to the work of men's hands; great though the achievements of men have been, still imperfection is written upon them all. The works of God, the Great Creator, the Divine Architect and Mechanic, are alone perfect. The human frame, that machine of machines, is no more perfect to-day than when it sprung, bounding with life and beauty, from the inanimate dust of Paradise. This we cannot say of the works of man; the real perfect must ever be before us. When we look behind and see what progress man has made in invention, and then compare what he has done with the works of nature, we always find more imperfections in the former, and more perfection in the latter. It is true, indeed, in respect to the mechanic arts, that the present state of them may be called perfection in comparison with the state in which they were a century ago, but this should not damp the ardor of the ingenious mechanic. There is still plenty of room for invention and improvement; yea, and it will ever be so; with every new achievement, new wants will spring up; and, to provide for these, the inventor will still have to exercise his genius and the mechanic his cultivated skill. We can go on towards perfection, but can never reach it; and the more perfect the arts become, even after many ages will have passed away, still, something will always be wanting to complete the picture. With all our perfection in the arts, more new inventions are demanded to-day than ever there were at any period of the world's history; and the mechanic who may be living a hundred years hence will have the same story to tell. Here we have prizes offered for five new improvements, relating to railroads alone, and when we consider that it is only twenty years since the first scream of the locomotive was heard in our land—that not a single iron horse was seen panting along the iron track in the United States at that time, and that now his iron hoofs are heard thundering through the heart of the Green Mountains, over the Hudson, down the slopes of the Alleghenies, and along the banks of the Mississippi, well may we hold up that man to ridicule who even hints at a limitation to new inventions and discoveries. In twenty years we have built a track of twelve thousand miles long for the iron steed—what a race-course! In a few years more he will commence his race wet with the spray of the Atlantic, and will not slack his iron nerves till he has snuffed the breezes of the Pacific.

Inventors of America! the progress of invention in your land is entrusted to your keeping.

### Measures of Length.

A correspondent writes us inquiring "what is the standard for tape or rule measures?" He says that he has a yard-stick and a two foot measure, and the one is longer than the one of his neighbor, and shorter than the other by about one-sixteenth of an inch. The fault is certainly not with the standard of measure, but the makers of those instruments. The standard of a yard is to be compared with the vibration of a pendulum in a vacuum at the level of the sea in London. The beat should be 39·1393 inches in a second, and the yard should be as 36 to this. This measure was adopted by an Act of Parliament, and is the one we use in America, our rules being derived from the English

### The Cold Weather.

For twenty years we have had no such cold weather, in any winter, as we have had during the resent one. On Tuesday morning of last week thousands crossed the ice on foot between Brooklyn and New York. On Thursday morning, also, great numbers crossed on foot. The greatest cold has been 4° below zero. This, however, is nothing to 36°, at which point it has been in Franconia, N. H.

### Extension of the Woodworth Patent.

Some time ago we directed the attention of "all those concerned," to the efforts which were about to be made for the extension of the famous Woodworth Patent, for seven years beyond the term when it shall expire—which will be on the 27th day of December, 1856, nearly four years from the present date. Systematic and well-planned efforts to get the present Patent Committees of the two Houses of Congress to favor the extension of the patent, will be made, and no means spared to get the Bill passed. It is time that those who honestly believe themselves to be morally wronged by the monopoly of this patent were up and doing. It is for you, gentlemen, to organize and act. Things are managed in Washington with so much subtilty, that the first you will know will perhaps be an extension of the patent of William Woodworth to his heirs, &c., for a period of seven years from 1855. It may appear strange to some of our citizens that any public body in this free country would do such a thing—would dare to do it; but despotic and unjust grants of monopolies are not peculiar to kings and autocrats. Unless our rulers are watched, they will forget themselves; the people must let them know that their eyes are upon them, and that they will call them to account for every vote they give. There are Senators and Members in Congress against whom the breath of suspicion cannot be raised; let their attention be directed to this case.

It is not long since the late Common Council of the great city of New York passed a contract granting a monopoly to a Gas Company in the city, for seventeen years, and the grant was actually legislating for their successors, as it was not to take effect until they—the grantees—were six months out of office. If the present Congress extend the Woodworth patent five years before its expiration, it will exhibit a want of decency without a parallel; but, then, such considerations may not prevent its extension. The most effectual way to prevent its extension is to petition and use efforts to get the present grant repealed. We do not counsel this, but in consideration of the efforts made for its extension.

The Committees on Patents consist of Moses Norris, Jr., Charles T. James, James Whitcomb, W. C. Dawson, and Truman Smith—these are the Senators. The Committee of the House of Representatives consists of David K. Cartter, of Ohio, M. M. Dimmick, of Pa., W. J. Ward, of Ky., Benj. J. Thurston, of R. I., and Alex. White, of Ala. These gentlemen are the proper persons to whom petitions on patents should be addressed.

### Curiosities of Water---Explosions of Steam Boilers.

A respected correspondent, writing to us from Florida, informs us that in conversation with his engineer, a sensible practical man of great experience, who was once an engineer on board of a steamboat that was blown up, and by which he was a great sufferer, he gave it as his opinion, that a very inflammable gas is sometimes generated in steam boilers, and which is not indicated by any particular pressure of the steam. He says he has seen the solder of the steampipes melt at 170 lbs. pressure, and has also seen it melt at only 70 lbs. pressure. He believes that this gas will explode like gunpowder, if it comes in contact with flame. A friend of his made a small boiler of a piece of steam pipe, and furnished it with a safety valve; he got up the steam in it until the safety valve opened, then he put out the fire under the boiler, and applied a torch to the steam issuing from the valve; an explosion like a bomb shell took place, blowing every thing into fragments and scalding him severely.

There can be no doubt but if the water is decomposed in the boiler, a torch applied to the gas issuing from the valve will cause an explosion. Water is composed of two gases, oxygen and hydrogen. These two gases, in the proportions which form water, will explode with fearful violence if a spark is applied to them, the product of the explosive gases, strange no doubt to some, is water. Explosions will take place in boilers when a torch is applied to the gases, if the water be decomposed. Red-hot iron will decompose water; the oxygen will combine with the iron and the hydrogen will be set free; if this hydrogen is mixed with 8 parts of the atmosphere, and a torch applied to it, it will explode with great violence. This, in all likelihood, was the cause of the model boiler explosion spoken of above. The melting of the solder at the different pressures spoken of is not so much to be wondered at, for there is only about 66° of difference between 70 and 170 lbs. pressure.

There is a question connected with steam which is more strange than any, and yet we seldom here it mentioned. It is this,—water at 212° gives off steam, this steam is totally different in its nature and action from water, and yet it is only 212° also. Why does not the water, at 212°, all flash in a moment, like gunpowder, into steam, that is, to 1700 times its original bulk? We cannot tell; we only know it does not do it. It has been proven by Faraday, however, that water, perfectly purged of all atmospheric air (which all water contains a portion of), when heated to 300°, explodes instantly; that is, it all flashes at once into steam. There is another property belonging to water not so universally known to engineers as it should be, namely, all the water in a boiler will become steam in a given time, when subjected to a constant heat and great pressure. If a certain amount of water, at the heat of melted ice, be put into a vessel, and a lamp applied to the same, it will be found that if the time occupied to bring the water from melted ice to 212° (the point where steam commences to be given off) be noted, and the lamp kept at the vessel for 5½ times longer, all the water will be changed into steam; it follows, then, that if a certain amount of heat be applied to water, for 5½ times the period it took to raise the temperature from that of melted ice to the steam point, all the water will be in a state to flash at once into 1700 times its original bulk. A cubic foot of water, converted into steam, occupies 1700 times the space it formerly occupied, if not compressed; and two cubic feet of water, converted into steam, occupies a space of 3400 cubic feet. The pressure exerted by such an expansive force is tremendous. If frozen water has burst cannons, is it to be wondered at that heat and water burst boilers? Every engineer should be thoroughly acquainted with all the known chemical and mechanical properties of water and steam. The observations of eminent practical engineers are very valuable; they are situated to observe the phenomena of steam, and there may be many not yet generally known.

### The Rappings.

"A rapper in New England, of the Andrew Jackson Davis school, professes to have had a recent communication from the spirit of Ethan Allen, in which he stated that he and Tom Paine were stopping at a hotel kept by John Bunyan."

The above is from an exchange: it is a sad commentary upon the intellectual and moral qualifications which make up the school referred to,—a sad reflection to find a spirit of infidelity creeping into the community under a disguised form, and leading in its train the credulous and simple-minded. What a vast account the leaders of such schemes will have to render.

### American Axes in Canada.

The Montreal Herald states that a manufactory of American axes has been established on the Lachine Canal, by Messrs. Scott, Brothers & Co. Their steel and iron are imported from England, and their coal from Pennsylvania. To balance the expense of importing coals, they have the tariffs both of the Province and the United States. They have the Provincial duty of 12½ per cent. against imported hardware, and, instead of the 30 to 40 per cent. duty the United States imposes on British iron and steel, they have the nominal one of 2½ per cent.

The American Axe, it is well known, is of a peculiar shape, curved in its outline, and very thick towards its edge—so that a section of it would not be an acute triangle, but the meeting at an acute angle of two curves. Its use is principally to fell trees, and the object of its peculiar shape is to clear itself when struck into the green wood, so as not to stick, and require an effort to extricate itself, but to come out easily, and rather to recoil, for another blow.

### Photography and Gutta Percha.

At a recent meeting of the London Photographic Club, Mr. Fry exhibited some pictures on glass, prepared with a combination of collodion and gutta percha, which the Athenæum speaks of as being charming. The gutta percha is added in small quantities to the collodion (or ethereal solution of gun cotton), in which it readily dissolves, and the latter is then used as in the ordinary collodion process, the picture being developed by pyro-gallic acid. The film on the glass is described as being for more adherent than that obtained by common collodion or by albumen. The sensibility of the preparation is such that a positive copy from a glass negative has been obtained in five seconds by gas light.

The Photographic Club, says the Athenæum, is exciting much interest among artists; and at the last meeting, which was at Mr. Fry's house, Sir Charles Eastlake, Mr. Harding, Mr. Roberts, Mr. George Cruikshank, and a number of other eminent artists, were present.

### Felt Cloth Carpets.

The Journal of Commerce gives an account of a novel production which the Bay State Mills—those which recently drove the British shawls out of the market—have produced. It is a felt cloth carpet, printed in block work, and designed according to weight either as a floor cloth or drugget. The threads of wool are not spun or woven, but drawn out and laid together, the whole mass being felted like a hat body. Within a few months, fabrics have been put together in this way, showing a different color on either side, and designed for coats to be made up without lining. The Bay State Mills make this cloth with a white ground, about 40 inches wide, weighing from 4 to 24 ozs. per yard, and print it in elegant carpet designs, showing the richest combination of brilliant colors, and furnish it at 75 to 90 cents per yard.

We do not see why this kind of carpets should not answer as well as the woven kind.

### Burning of a Steamship.

The British steamship Amazon, from Southampton to the West Indies, was entirely consumed by fire on the 3rd inst. Out of 165 persons on board, only 19 were saved. The fire was caused by spontaneous combustion. In this case it appears to us that if hose of vulcanized india rubber attached to the steam boilers had been employed, the fire could have been put out easily in its early stages. Will our steamship owners think of this?

### Petition for Extension of Patent.

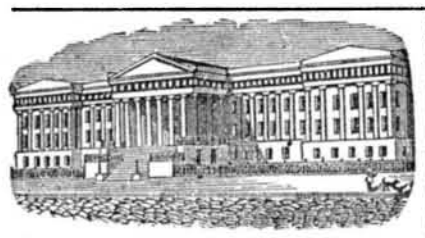
United States Patent Office.—On the petition of Samuel Truscott and George Wolf, of Columbia, Pennsylvania, and James Dougherty, of Philadelphia, Pennsylvania, praying for the extension of a patent granted to them for an "improvement in the mode of making cast-iron wheels to be used on railroads, and applicable to other purposes," for seven years from the expiration of said patent, which takes place on the 17th day of March, A. D. 1852.

It is ordered that the said petition be heard at the Patent Office on Tuesday the 16th of March, next, at 12 o'clock M.; and all persons are notified to appear and show cause, if any they have, why said petition ought not to be granted.

Persons opposing the extension are required to file in the Patent Office their objections, specifically set forth in writing, at least twenty days before the day of hearing; all testimony filed by either party to be used at the said hearing, must be taken and transmitted in accordance with the rules of the office, which will be furnished on application.

THOS. EWBANK, Com. of Patents.

[The above petition will no doubt excite a great deal of attention among our railroad car wheel makers. This wheel is well known and has been the subject of many patent lawsuits. A verdict of $3,000 was rendered against a company a few years ago for the infringement of a patent.



*Reported Officially for the Scientific American*

## LIST OF PATENT CLAIMS

**Issued from the United States Patent Office**

FOR THE WEEK ENDING JANUARY, 20th, 1852.

SPLITTING RATTAN—By Joseph Sawyer, of Royalton, Mass.: I claim the employment, in combination with the cutters, for splitting off the strands, of feed rollers or their equivalents, having grooves of the form of an angle or certain of the sides of a polygon, of which the edge or edges of the knife or knives form another side, or other sides, substantially as described.

MASHING MAZE—By Frederick Seitz, of Easton, Pa.: I claim the specified preparation and boiling of the corn for brewing and distilling—boiling it to a jelly before the malt or rye is mashed into it, giving a much larger than the usual yield from cheaper material, by enabling me to use one-half to two-thirds corn for beer, ale, and porter, and to make 19 quarts of whiskey from 60 pounds of corn, (including the usual quantity of malt only, and no rye,) and 21 quarts with rye.

PLANING MACHINES—By G. W. Tolhuet, of Cleveland, Ohio: I am aware that the stocks and cutters of planing machines have been made to yield upon an axle, the centre of which is in line with the cutting edge of the knife. This I do not claim; but I claim hanging the stock at a line above the edge of the cutter, to a spring or weighted lever, in the manner described, in combination with the resting of the front part of the stock upon a fixed surface, so that when the back part of the stock is made to rise, the whole stock is thrown forward and upward, thus keeping the edge of the cutter at the same level, notwithstanding the change in its angle with the bed.

GRAIN HARVESTERS—By Thomas Van Fossen, of Lancaster, Ohio: I claim constructing the reel with hinged or jointed slats, having teeth projecting from them, whereby the grain is more effectually collected, raised, and drawn into the action of the cutters, as described.

I also claim the combination of the teeth with the sliding platform, which teeth rise and fall at the desired time, alternately arresting and releasing the cut grain, whereby the reciprocating motion of the platform will keep the cut grain straight and constantly moving on the platform towards the trough, substantially as described.

CANAL LOCKS—By W. W. Virdin, of Havre de Grace, Md.: I claim causing the weight of the descending boat to act as a supplying power to the higher levels, by the use of plunges or floats (any number) fitting in suitable chambers provided with appropriate passages, and communicating with the higher or lower levels for operation, in the manner essentially as described.

MATTRESSES—By John Waters, of Southwark, Pa.: I claim the method described, of securing the springs of spring mattresses to the frame and to each other, so as to leave the tops of the springs free to play or yield to any pressure—viz: by connecting them together by a rivetted leather hinge, and allowing the longitudinal and cross pieces of the frame to pass through a slot in said leather hinges, the whole being combined and arranged in the manner set forth.

MILL FOR GRINDING QUARTZ—By Horatio Blasdell, of New York, N. Y.: I claim the combination of the chilled hollow cylinder and nut, and the grooved chilled rings, and horizontal circular channeled chilled ring plates, with the grooved concave and runner, for breaking, pulverising and powdering gold quartz rock; the said chilled rings and plates being arranged and operating in the manner set forth.

CHURNS—By Edwin B. Clement, of Barnet, Vt.: I claim the application to dashers for churns, of floats that shall close together at their appointed place, when pressed downwards through the cream or milk, forcing the cream or milk through narrow spaces, and opening again when raised from the bottom; claiming the right of composing the dasher of any materials, and in any combination of the above described parts, so as substantially to produce the same effects.

DRILLING STONE—By Henry Goulding, of Boston, Mass.: I claim, first, driving the drills forward and back by adjustable wheels, between the edges of which the drill shaft is placed substantially as described.

Second, I claim turning the drill by placing said wheels at an angle to each other, substantially as described.

Third, I claim feeding the drill forward as the hole is deepened, by making the bearing surface of the wheels which drive the drill in, of greater length than that of the other wheels.

WASHING MACHINES—By John McLaughlin, of Goshner, Ohio: I claim, first, the method of hanging and operating the plunger by means of the shackles and the heavy counterpoise handle as described.

HAND PRINTING PRESSES—By Henry Moeser, of Pittsburgh, Pa.: I claim the tympan plate of a printing hand press, removable by hinges, and counterbalanced, together with the manner of holding the tympan plate in its position, (when lowered down) for the purpose of resisting effectually the pressure exercised from below, substantially as described.

SPINNING MACHINERY—By Oliver Pearl and Henry P. Chandler, of Lawrence, Mass.: We claim the arrangement of the whirl at the base of the flyer, in combination with making the said whirl, and the bearing on which the whirl is placed and rotates, with a passage through them, large enough to allow the bobbin to play within the same, and up and down between the flyer legs, substantially as specified.

SELF-SHARPENING GRINDSTONE—By Jesse Panabecker, of Elizabeth Township, Pa.: I claim the combination of a grindstone with self-acting picker, by which the grindstone is sharpened by its motion or power as described, or in any other manner substantially the same.

NAIL MACHINES—By Samuel G. Reynolds, of Worcester, Mass.: I wish it to be distinctly understood that my invention is susceptible of modifications; as, for instance, instead of making an active pressure on all four faces of the blank to give the required form, the same thing may be accomplished, although not so well, by making active pressure on two faces, and simply presenting resistance to the other two faces.

I claim in the making of wrought nails the employment of the cutter for cutting wedge-formed pieces from a previously rolled plate of equal, or nearly equal thickness, substantially as described, preparatory to, and in combination with, the moulding dies which receive the cut pieces, by suitable conveying apparatus from the cutters, and mould them to the required form by pressure, substantially as specified, so as to give the form by spreading the metal between the dies, instead of elongation, as heretofore practised when making nails from cut blanks.

I also claim the vibrating cutters and the faces or dies, for confining and compressing the nails arranged on both sides of the said cutter, substantially as described, when this is combined with the two stationary cutters, having a space between the two, through which the rod or plate of iron is fed, substantially as described.

BRICK KILNS—By William Linton, of Baltimore, Md.: I claim forming air arches or openings in the kiln, between the fire beds, with lateral openings therein, through which a sufficient amount of air can be supplied equally to all parts of the fire bed at the same time, substantially as described.

CAST AND WROUGHT IRON BLINDS—By Robert White, of Washington, D. C.: I do not claim the combining cast and wrought iron, nor do I claim to be the first to have cast metal round cold metal, and joining the same by that means; but producing a new product or article of manufacture for shutters, doors, &c., whereby I am enabled to use wrought iron slats, and prevent the contraction of the metal, in cooling, from warping the same, by casting the top, centre, and bottom plates separately and distinct from the side plates, and running the side plates to the slats and plates, substantially as set forth.

### Great International Patent Cases.

On the first of last December, application was made at the Vice Chancellor's Court, London, Sir G. Turner, presiding, by a Mr. Caldwell, for an injunction to restrain a Dutch Company, named the "Amsterdam Screw Company," from using an improvement on a propeller on the Dutch screw steamship named "Fyenoord." The improvement was the invention of a Mr. Lowe, and was an English patent. The Dutch ship had the improvement; it was constructed in Holland; the owners knew nothing about Lowe's patent, and when it came into English waters, the application was made to restrain the company from using it, or to pay for the privilege. Sir G. Turner, the Vice Chancellor took twenty days to consider the case, and on the 20th of December, gave the following judgment:—

"The circumstances brought before the Court, as a defence to the application, were stated in the affidavit of one of the defendants in the first cause. The affidavit stated that the ship referred to in that cause, the "Fyenoord," was the property of a company in Holland, called the "Amsterdam Steam Screw-Schooner Company;" that the company was composed of numerous partners, all of whom were subjects of the king of Holland, and none of whom were English subjects; that the company was entitled by the law of Holland to trade with steamships, built and fitted up with the propelling power which was the subject of the application; that the screw-propellers in their ships were manufactured and fitted by the defendants at Amsterdam; that the defendants were, and always had been, unacquainted with the invention of James Lowe, and that the deponent believed that all the said ships were built and fitted in ignorance of the existence of any such patent; that no patent had been granted to secure the alleged invention in Holland, and that according to the laws of Holland, it was open to any English subject to apply for and obtain a patent in the kingdom of Holland; that before the vessel in question had been built and fitted in the same manner, and had traded between Amsterdam and London, and made many voyages; that the defendants had not, until Septemper last, heard of any objection to their so trading on the ground of the alleged infringement of the patent; that various other vessels had been built and fitted in Holland with propellers on the same principle, and with the same propelling power; and that it would be a great loss to the company, and to both England and Holland, if the trade, which was profitable to both countries, should be restrained by the Court. This affidavit set forth, in clear and distinct language, the grounds on which the case of the defendants was founded. He was of opinion that he could not withhold the injunction on the ground stated. Upon the general principle, foreigners were subject to the laws of the country in which they happened to be. If there were any cases in which they were subject to their own laws in another country, it was not by force of those laws, but of the laws of the country in which they were, adopting their laws into their own. This was the doctrine laid down by Mr. Justice Story, in his "Conflict of Laws." The principle in this country did not depend upon the general law. It was the subject of special provision by statute. The statute 32nd Henry VIII. chap. 16, sec. 9, provided "that every alien and stranger born out of the King's obeisance, not being denizen, which now or hereafter shall come in or to this realm or elsewhere within the King's dominions, shall, after the 1st day of September next coming, be bounden by and unto the laws and statutes of this realm, and to all and singular the contents of the same." Natural justice, in fact, required that the defendants, when in this country, should be subject to its laws. The question then was, what were the rights of patentees? The crown had, in this kingdom, always exercised the right of interfering with the trade of the country, and had at a former period exercised that power very prejudicially. The abuse of this power had been restrained by the statute of James. In the case of the monopolies reported by Sir Edward Coke, it was held that the Crown had power to grant an exclusive right of trading for a reasonable period, and this was limited by the statute for the term of fourteen years. The statute did not, however, create, but control the power of the Crown to grant patents; but the patentees derived their rights, not from the statute, but from the grant of the Crown. What, then, were the words of the patent? "The Crown thereby gave the patentee, his executors, administrators, and assigns, special license, full power, sole privilege, and authority, that he, the said patentee, his executors, administrators, and assigns, and every one of them, by himself and themselves, or by his and their deputy or deputies, servants, agents, or such others as he the said patentee, his executors, administrators, or assigns, should at any time agree with, and no others, from time to time, and at all times thereafter during the term of years therein expressed, should and lawfully might make, use, exercise, and vend his said invention within that part of the United Kingdom of Great Britain and Ireland called England, the dominion of Wales, and town of Berwick-upon-Tweed, in such manner as to him, the said patentee, his executors, administrators, and assigns, or any of them, should in his or their discretion seem meet." Now, foreigners, as well as British subjects, were liable to actions for injuries to the civil rights of British subjects; and there was no reason why they should not be equally liable to action for the infringement of the right thus granted. If that were so, there was equally no reason why the jurisdiction of this Court, should not be appealed to against them. The right would, in former times, have been enforced, in aid of the King's grant, by proceedings in the Star Chamber. In the course of the argument he had inquired whether, if a locomotive engine on a railway, the subject of a patent in England, but for which no patent had been obtained in Scotland, were made in the latter country, it could be allowed to run into England without any objection on the ground of the infringement of the English patent; or, if the invention had been the subject of a patent in England, but not in Ireland, the vessel would be permitted to trade between Dublin and Liverpool without any such objection. The answer given to this was, that the prior use of a patent in Scotland would be fatal to a patent obtained in England, but that such would not be the case if the prior use were in a foreign country. This was not, however, an answer to the observation. In one case the result would depend on the previous knowledge of the invention—in the other case, on the effect of the patent. The remarks of Lord Eldon, in the case of the Bibles—"Richardson vs. the University of Oxford"—had been referred to on the cases of necessity which arise for allowing a user of the subject of a patent, and it was said that this was such a user as the Court would not restrain. There might, no doubt, be such cases of necessity, and perhaps the case suggested of a foreign ship stranded on the English coast might be such a case. It must be remembered that foreigners were at liberty to apply for and obtain patents in this country with the same privileges as British subjects. If foreign inventors did not take this step, they, to that extent at least, withheld the use of their invention from the subjects of this country; and, if they were restrained from using their own inventions in this country, such inventions being the subjects of patents granted to other persons, they had nothing taken from them by that restraint, for, if the patent were valid, the right of using their inventions in this country was one which they had never enjoyed. It had been argued that any interposition of this Court might be met by similar restraints on our ships abroad; but this question resolved itself into one of national policy. It was a proper subject for the consideration of the Legislature; but it was the duty of this Court to administer the law, and not to make it. He was of opinion that the facts stated did not afford a sufficient ground for refusing the injunction."

The injunction was granted restraining the said company, from using the propeller in Great Britain and Ireland, until licensed by Lowe, the patentee. We have published all the charge, because it is perhaps the most important case of international patent law that has ever been presented. It will afford some study for our patent lawyers, and to many of them, it will be new light. It demands the attention of all our citizens, not merely patentees. The first Mr. Collins, or some other of our steamship owners, knows, will perhaps be an injunction laid upon some of his steamships, for some little bit of an improvement for which some has secured a patent in England some years ago, and about which he knows nothing. It may also be the case with some English ship coming here. It is hard to tell what will come out of this decision.

This question is about becoming national between the United States and England; a review of this decision, with other important matter relating to it, will be presented next week.

### Commercial Statistics of England.

A recent work by Mr. Braithwaite Poole, shows that the railways of Britain have cost £240,000,000, the canals £260,000,000, and the docks £30,000,000. The mercantile marine consists of 35,000 vessels, 4,200,000 tons, with 240,000 men; and one vessel is lost on an average every tide! The navy consists of 585 vessels, 570,000 tons, and 48,000 men. Yachts 520, and 23,000 tons. The ancient Britons knew only six primitive ores from which metals were produced; whereas the present scientific generations use 50. The aggregate yield of minerals in the country is equivalent in value to about £25,000,000 annually. The agricultural produce of milk, meat, eggs, butter, and cheese, is 3,000,000 tons, and £50,000,000. The ale, wine and spirits, consumed annually exceed 3,300,000 tons and £54,000,000; whilst sugar tea, and coffee scarcely reach 450,000 tons, and £27,000,000. The fisheries net £7,000,000 annually. In manufactures the cotton, woollen, and silk, altogether, amount to 420,000 tons, and £95,000,000. whilst hardware exhibit 350,000 tons, and £20,000,000; in addition to which 1,250 tons of pins and needles are made yearly, worth £1,000,000. Earthenware, 160,000 tons, £,3-500,000; glass, 58,000 tons, £1,680,000.

### The Opium Trade.

A correspondent of the National Intelligencer, writing from China, says there are scarcely any foreign manufactures and products consumed in China. The Opium trade, and some importations of raw cotton are the only counterbalancing sources of reimbursement for all the money left there for teas, silks, &c.—There are American and other merchants who speculate in Opium; but as they have to buy it from India their profits are contingent on the luck of the venture. If this Opium trade could be suspended, the money which is now paid for Opium might find a more legitimate distribution in exchange for cheap cottons, and perhaps breadstuffs; and when it is considered that $30,000,000 are paid by the Chinese annually for Opium, the world at large, and the United States in particular, do lose something by the trade.

### The Great Forrest Case.

This celebrated divorce case, so well known throughout our country, was terminated in this city last Monday. The verdict of the Jury was in favor of Mrs. Forrest. She gets $3000 alimony per annum.