For the Scientific American.

Patent Laws and Business.

We have already pointed out three reforms which in our opinion should be made in the Patent Laws. These reforms are,

1st. A minute and specified description of claims, &c. sent to a rejected applicant in his letter of rejection.

2d. To grant patents to citizens for the introduction of new and useful inventions and discoveries.

3d. A mode of annulling a patent (by a writ of *scire facias*) if granted wrongfully, to be proven by fair trial.

The only difficulty in the way of carrying out the latter reform is in the case of infringements. The Patent Office might grant a patent for an invention, while there might be a patent in existence which the patentee would consider to be infringed upon by the new patent. We have numerous instances of this kind. In England patentees get notice of applications for patents, for similar inventions to their patents, and they are requested to show cause why such a patent should not be granted. This saves a great deal of litigation afterwards. Look at the many suits with us, against patented machines, by Blanchard, and the heirs of Woodworth. Look at the number of patents that have been set aside as infringements on them, and then we will be able to form some opinion of the capacity of the corps of the Patent Office to judge of infringements, and whether more bitter patent law suits have arisen since the Patent Office was armed with its rejection thunder, than before. A fair trial can only decide the question of an infringement. All cases of infringement lie in combinations to produce certain results. A new combination of old parts produces a new machine, and is the valid subject of a patent. A case of alleged infringement which we have before us, explains the matter of difference fully. A patent was granted in England for a machine for shearing cloth, by means of rotary helical cutters acting in combination with a fixed straight blade, and the machine was so arranged, that the cloth in passing through it came under the operation of the cutter blades, in a direction to be cut from list to list. This was found to be a highly useful combination of parts, but the same parts had been differently combined in a previously patented machine, in which the cloth was cut in the direction of its length. The patentee of the latter patent, carefully claimed only the combination of parts to cut from list to list, with a rotary cutter, and as the important results depended on that peculiar arrangement, Lord Tenterden said, "if before this patent the cutting from list to list by rotary cutters were not combined, then the combination to cut from list to list was new," and will enable the patentee to maintain it at law. Would some of our present judges have given such a decision? We are afraid that they would not.

We close our remarks on the Patent Laws at present with this article, and before we make a finish, we have a few words to say in reference to the management of the Patent Office.

Considering the importance of the Patent Office as a National Institution—reflecting upon the benefits conferred upon our country by inventions—such as the cotton gin, steamboat, telegraph, and hundreds of other machines, we feel deeply mortified at the shameful neglect and treatment of Inventors. The late Commissioner of Patents made a Report to the Patent Office on the 1st of last January, and I have been informed that it is not yet printed. What a scandalous piece of business this is. Some sections of it have been printed, such as the most unimportant, but the full Report—the one containing the claims, and which alone is interesting to patentees, is not yet published. The delay in printing these reports is getting worse and worse every year, and I must say that although the Patent Office is sustained by the money of patentees and inventors alone,—no tax upon the country, yet they are treated as a set of beggars, to whom every act of justice that is done is an act of charity. Inventors must unite to sustain their rights or matters will get from bad to worse.

JUNIUS REDIVIVUS.

Dyeing Woods.

For dyeing wood a fine black color, have a chairmaker's copper fixed, into which put six pounds of chip logwood, and as many veneers as it will conveniently hold, without pressing too tight; fill it with water and let it boil slowly for about three hours; then add half a pound of powdered verdigris, half a pound of copperas, and four ounces of bruised nutgalls filling the copper up as the water evaporates; let it boil gently two hours each day till you find the wood to be dyed through; which, according to the kind, will be in more or less time.

FINE BLUE.

Take a clean glass bottle, into which put one pound of oil of vitriol; then take four ounces of the best indigo, pounded in a mortar; put them into a phial (take care to set the bottle in a basin or earthen glazed pan, as it will ferment); after it is quite dissolved, provide an earthen or wooden vessel, so constructed that it will conveniently hold the veneers you mean to dye; fill it rather more than one third with water into which pour as much of the vitriol and indigo, stirring it about, as will make a fine blue; which you may know by trying it with a piece of white wood; put in your veneers, and let them remain till the color has struck through.

The color will be much better if the solution of indigo in vitriol is kept a few weeks before using it; also the best trough you can use, is one made of stoneware.

FINE YELLOW.

Take of the root of barberry four pounds, reduce it by sawing, to dust, which put in a copper or brass trough, add four ounces of turmeric, to which put four gallons of water, then put in as many white veneers as the liquor will cover; boil them together three hours, often turning them; when cool, add two ounces of muriate of tin, and you will find the dye strike through much sooner.

Fustic and quercitron will also dye good colors, the former with alum, the latter with muriate of tin.

BRIGHT GREEN.

Proceed as in the above receipt to produce a yellow, with fustic, and add the vitriolated indigo, as much as will produce the desired color.

BRIGHT RED.

Take two pounds of genuine Brazil dust, add four gallons of water, and after putting in your veneers, boil them well, for at least three hours; then add two ounces of alum and a little salts of tin, and keep it lukewarm until it has struck entirely through.

PURPLE.

Take two pounds of chip logwood and half a pound of Brazil dust, add four gallons of water, and after putting in your veneers, boil them well, for at least three hours, then add six ounces of pearlash and two ounces of alum and let them boil two or three hours every day till you find the color struck through.

The Brazil dust in this receipt is perhaps superfluous, as it only contributes to make the purple of a more red cast; use muriate of tin very little.

ORANGE.

Let the veneers be dyed, by either of the methods given, of a fine deep yellow, and while they are still wet and saturated with the dye, transfer them to the bright red dye, till you find the color has penetrated equally throughout.

Remarkable Phenomenon.

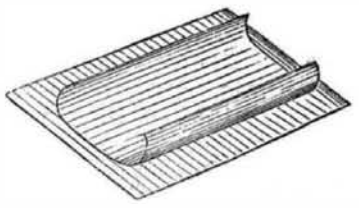
The Milwaukie Wisconsin is informed that the schooner Traveller, whilst on her pasage from the Michigan side of the lake, experienced a very singular phenomenon. Whilst not a breath of air stirred upon the waters, a breeze was blowing aloft so strong that, with her topsails alone set, she ran seven miles an hour. No breeze was discovered on deck, but by going 15 feet up the rigging, it was sensibly perceived, and above it was bending and twisting the topmast as in a severe gale.

Manufacture of Glass.

(*Continued from page* 344.)

The "largre" is a tray to receive the cylinder of glass. It is made of wood, which becomes charred on its face, forming a cushion which does not injure the surface of the glass. When the sheet of glass is rubbed down flat, it is pushed into the annealing kiln and remains there until it gets cold, when it is taken out with a pronged stick and piled on its edge against the wall of the kiln. The following engraving shows a sheet of glass half unrolled on its "largre."

FIG. 7.



The glass kilns are worked for forty eight or sixty hours at a time, the men relieving each other at intervals of eight hours; as soon as the annealing kiln is full of glass, the fires are checked and extinguished, and the apertures carefully closed, in order that the glass may become gradually cool, sixty or seventy hours being usually allowed for that purpose, at the expiration of which time the sheets are taken or drawn out of the kiln and sorted for the market. The flattened sheets are subjected to the annealing process for 130 hours, and it is from this cause that German sheet is always better annealed than crown glass; and being thicker and stranger than the latter article, as well as in larger squares, it is more tough, and consequently is better calculated to withstand violence or the injurious action of frost, properties of great value in all cases, but more particularly for covering skylights or conservatories, as when a proper thickness of sheet is employed, they stand with impunity the trial of the coldest winters and heaviest hailstones.

The thickness of glass blown as has been described heretofore, varies from the 24th to 5-16ths of an inch, or from eight or ten to thirty or forty ounces to the square foot; the thicker glass is not burst open exactly in the manner described, but when the cylinder is formed ready for opening, a piece of melting glass is "dabbed" on the end by an attendant and the blower stopping the hole of the pipe with his thumb, inserts the cylinder into the furnace; as the confined air expands, it forces open a hole at the spot which the melting glass has softened by its heat; the ragged edges of the opening are then cut off with the shears and the cylinder completed in the usual manner. Sheets thus made vary in size from about 30 inches by 26 inches to occasionally 60 inches by 40 inches in the hands of the superior workmen, who are also employed in making the "French shades" used for covering ornaments. For this purpose a cylinder is made of the necessary diameter and rather longer than the shade is to be when finished; the end, however, is not burst open but forms the top of the shade, the necessary beauty of shape being imparted to it by a series of most delicate manipulations almost indescribable, but consisting principally in the most precise management of the breath, and in allowing the end whilst hot to sink inwards like a cup, so that when blown out again it may assume exactly the curve required. No tools are used in blowing round shades, but oval and square ones are blown into wooden moulds; the pipe and cap are removed as usual, and the open ends cut square on the same principle as followed in squaring the ends of the cylinders.

Shades vary in size, some are very large and some very small. There are very few workmen capable of making shades of the largest size, which require lungs of the most capacious size.

Our article next week will treat of Plate Glass.

Starching and Ironing Clothes.

Clothes should be well rinsed before they are starched and then dried. When dry, they should be squeezed into a clean vessel of thick starch previously strained through a fine muslin cloth. They should then be shaken out and hung up to dry, and when dry dipped in clear water, squeezed and rolled up in a dry linen cloth. Some merely sprinkle them and roll them up till the damp finds its way through the mass, but as a general thing, this does not moisten them equally, which should be the case when ready for the iron. Some stir a sperm candle through the starch, and some keep one to rub on the iron while ironing. None of these plans should be used by the good housewife, however convenient and good they may be for market goods. The sperm is only to prevent the starch sticking to the iron, to produce a better gloss on the articles ironed. But if the face of the iron is always highly polished, and it is never used but at a good heat and the work smartly performed, there is no fear of the iron sticking to the starch—the work will be better done and quicker done. To keep the iron bright, free from oxide by the fire, and free from the starch, a Bath brick should be used on a small board, and every iron should be rubbed four or five times on it, when taken off the fire, and then the face of it wiped with a clean cloth.

LITERARY NOTICES.

Sartain's Magazine for August, is filled with a large amount of interesting original matter from the very first authors, and the embellishments are very numerous and beautiful. The publishers are enterprising men, and the patrons of the work need not fear of receiving the full value of a year's subscription. Ladies, don't miss of calling upon Messrs. Dewitt & Davenport, Tribune Buildings, and get a copy of this splendid number. Yearly subscription, $3; two copies $5.

Peterson's Ladies National Magazine should not be forgotten by the lovers of good reading. The beautiful mezzotint of Lady Mabel, by Gross, together with the touching story of her separation from the humble, yet faithful page Roland, and his return after a long absence is "Sir Roland Fitzclarence," forms the most prominent and interesting feature of this number. This magazine is published at $2 per annum, and is well worthy an extensive patronage.

Diseases of Winter, Coughs, Colds, Asthma.

This is a very able and comprehensive treatise, packed into a small space and sold for a low price, 25 cents, by the publisher, J S. Redfield, Clinton Hall The author of it is R. J. Culverwell, M. D.

Women in all Ages and Nations.

A book bearing the above title, embracing an historical account of the manners and customs of women in all ages, and showing the servitude to which they are subjected in barbarous countries, &c. &c., has just been published by H. Long & Brother, 43 Ann st. N. Y.