

For the Scientific American.  
**Patent Laws.—Selling before the Issue of a Patent.**  
 No 2.

By §15 Act of 1836, it is enacted that if a patentee, or other person interested, sue for an infringement, the defendant shall obtain a judgment in his own favor with costs, "if he prove the thing patented was "in public use or on sale with the consent and allowance of the patentee, before his application for a patent." §6 of the same Act provides that a patent may be issued to any inventor, for any machine, &c. which, besides being new, is "not at the time of his application for a patent, in public use or on sale, with his consent or allowance as the inventor or discoverer;" and §7 directs the Commissioner to issue a patent for any thing which, among other things, has not been "in public use or on sale, with the applicant's consent or allowance." All these provisions, however, are amended by §7 of the Act of 1839 before recited, although no words of amendment are used, for that section covers the whole ground of sales, and being in effect and operation contrary to the anterior provisions just mentioned, it must take their place. The term, "public use," as above used, is judicially interpreted to mean—not a universal or extensive use, but a use by one or more persons than the inventor, in such an open manner that the public or any person who desires may obtain a knowledge of the invention: and the same interpretation is given to the expressions "on sale," "vending," &c. by which is meant the exposing of any article or articles, in any shop, store, or other place, in any manner, for sale to any person who is willing to buy. Whether the article be actually sold or used is of no consequence: it is enough if the owner was willing or desirous to sell it, and this fact were or might become known to any others besides himself, who could purchase if they would.

In regard to sales made after filing a caveat, the law is not fully settled, and, until the subject comes before the Supreme Court, decisions at the Circuits will, as heretofore, be conflicting. But, to correct misapprehension as far as possible, it may be proper to embrace the subject of sales in a brief general exposition of the whole doctrine concerning Caveats.

By §12 Act of 1836, any person who has not matured his invention, and yet has the same so far completed that it can be clearly perceived to be a new invention though not a perfect one, may, by filing a description and drawing (where one can be made) and a petition setting forth his desire for protection, (at the same time paying \$20,) have the same deposited in the "confidential archives" of the Office. If "within one year after" the filing, application for a patent is made by any other person for an invention which is similar or in any way conflicts with the former, the person filing the caveat is notified of that fact by the Commissioner, and must then within three months, file his specification, model and drawings, or, in other words, must mature his invention and apply regularly for a patent, or the other inventor will receive a patent. If he apply in due form, then his right to a patent will be decided in the same manner as two conflicting applications for a patent, that is to say, proof as to which was the first inventor, which is by first ascertaining who first made a model or specimen of the invention, and communicated a knowledge of it to the public (viz. any other person beside himself,) and if the Caveator prevail he obtains a patent on the payment of \$10.

If however, no conflicting claims be made at the office within one year, the Caveator is not entitled to any notice of another's application subsequently; and though he may at any time thereafter, obtain a patent on the payment of \$10, (\$20 having been paid for the Caveat,) yet if a patent has in the meantime been granted to another, which embraces the same invention or any part of it, he must take steps to set that aside, which are, by presenting facts and evidence before a special Board of Examiners to show that he was the first and true inventor.

The filing of a Caveat, then, it is evident, is not equivalent to an application for a patent, and the only protection it gives is the

privilege of notice of conflicting "applications," (not conflicting Caveats.)

As the statute says nothing concerning sales under Caveats, they must be governed by the same rules as sales before "applications." These I have before set forth, and are all contained in §7 of the Act of 1839 first recited.

It appears then, that sales of new inventions may be made before a regular application for a patent is filed in the office, (for it is the filing of petition, specification, drawings and model, that constitutes the "application.") But every "specific" machine, specimen or identical article sold, prior to the application may at any time be resold by the purchaser, as well after as before the patent issues: though any person who buys of him after the patent is applied for, is entitled only to use the purchase, which he may do "without liability therefor to the patentee or any person interested."

One important fact must always be borne in mind. If the inventor does not apply for a patent "within two years" after the first sale of his invention to any individual, he cannot obtain a patent, provided that fact be made known at the office, or if he do obtain a patent, it will for that reason be held void, whenever the subject is brought before the Courts upon a suit for infringement.

Rochester, N. Y. W. F. LIDDELL.  
 (To be continued.)

**Fossil Footprints.**

Dexter Marsh, a mechanic of Greenfield, Mass. many years ago, discovered on the flagging stones with which he was laying a side walk, what appeared to be the foot-prints of some strange bird. The geologists pronounced them to be such, and to belong to a period before the creation of man. This discovery so excited the curiosity and scientific ardor of Mr. Marsh, that he has since made it his amusement to look for such impressions, and he has traversed the valley from the northern Massachusetts line to Wethersfield, Conn., sometimes spending weeks in quarrying rocks with the sole view of discovering these ancient tracks. In the last number of Silliman's Journal of Science, he gives a brief account of his labors and successes, from which we may understand that the Connecticut valley, in by gone ages, was a favorite resort of birds, that would have made no more of putting a man in their crops, than turkeys do of swallowing grasshoppers.

Mr. Marsh has in his possession more than eight hundred foot-prints of birds and quadrupeds, besides having furnished many specimens to others, in this and other countries. In some cases these specimens are so distinct as not only to show the joints of the toes, but the perfect impression of the skin. He has perfect tracks of quadrupeds so small that a half dime will cover the whole foot, and again others of birds where the foot measures half a yard from the toe to the heel, so that if the birds which made them were proportioned like those we now have, they must have stood twenty feet high!

He has sometimes followed the track of a bird thirty or forty feet in the rock, the track being at first faint as if on hard soil; then more distinct, as if imprinted on the sand at the water's edge, and finally sinking in the mud and disappearing in the water. He has one slab four or five inches thick, upon which the tracks appear as mere straight lines upon the surface; but on splitting it into five layers, they grow more and more distinct, till the lower slab shows where the foot rested, just as if when the stone was in a state of mud, the bird trod down to the bottom of it, and on withdrawing the foot the mud closed up.

Among these tracks are many very unlike to those made by any known animals, but still so marked as to leave no doubt that animals made them. A sort of Kangaroo, for example, shows very small fore feet, and very large hind ones. Of this the Journal of Science gives a striking cut.

**Ignorance and Crime.**

By the official return it appears that of the 56 prisoners in the Durham county Goal, England who took their trials at the summer assizes, 25 could neither read nor write, whilst the remaining 21 could only read and write imperfectly.

**Foreign Correspondence.**

Dear Scientific.—Trade in our city is still enshrouded in gloom—the foreign market upon which our hive of working bees depend, is at present, and has been for a long time much depressed, consequently there is much suffering among our working people, for where there is no work, there is no pay. All portions of our community are suffering on this account, for there is less consumed than when trade was good, hence circulation is curtailed and our farmers and merchants are alike involved in the common distress. I trust this may be a warning to them, and that their hearts and eyes will be opened (for their own sakes) to the importance of good wages and plenty of work, being a benefit to all.

The cholera is expected to visit our pent up city, and there are some miserable lanes and streets, such as the Vennels and one called Goose Dubbs, that will be swept of their inhabitants as if a blast of the desert swept through them. I would desire to warn New York against the coming pestilence, as in all likelihood it will reach you the coming summer. Let the poor in your city, be exhorted, and if need be, compelled to cleanliness and proper ventilation, and no undue fears need be entertained for the *Scourge of Asia*,

A new Tidal and Meteorological Clock has been erected in the passenger waiting room at our Steamboat Quay, Broomielaw. It is an instrument of a very ingenious and intricate description, and one which will prove of immense value to science. It may be described as a self-acting and self-registering tide, wind, and weather gauge. The instrument consists of eight parts viz. :—

The Clock, which shows the hours and minutes.

The Barometer, indicating at each hour the pressure of the atmosphere.

The Tide Gauge, exhibiting the time of high and low water also the depth in feet.

The Spate (freshet) Gauge, showing the height to which spates in the river rise above the tide at high water.

The Anemometer, indicating the force of the wind, expressed in lbs.

The Thermometer, showing the temperature of the air.

The Anemoscope, showing the direction of the wind.

The Rain Gauge, which indicates when the rain commences, the time of its duration, and the amount of rain fallen, expressed in tenths of an inch.

All the changes in tides and weather are indicated by curved or sectional lines on a large sheet of ruled paper, wrapped round a vertical cylinder, which revolves once in a week. The fidelity of the pencils tracing their reports is most wonderful. There they are at their most silent work day and night. Every change of tide, the measurement of its height; the changes in the wind, its force; the state of the atmosphere, with the hours at which all these phenomena take place, are observed and noted with unerring accuracy.—This most elaborate and comprehensive instrument is the construction of the Messrs. Bryson of Edinburgh, and has been erected by the Clyde Trustees at a cost of about £250. We do not know of any other such instrument in existence. The only other attempt at such registrations was made by the Royal Society of Edinburgh. But, alas for the interests of science, after a year of unobserved observations the whole thing was given up, because the Royal Society could not afford to keep a person to superintend the machine, and register its observations! It is to be hoped, however that no short-sighted policy of this kind will ever prevent our Trustees from maintaining and registering all the results furnished by this beautiful instrument.

A new kind of steam engine called the Parallelopiped, has lately been invented by Mr. John McDowall, of Johnstone, a place about 12 miles from this city, and a short distance from the birth place of the immortal Wallace. The engine of Mr. McDowall has been highly praised by some, but in spite of its pompous name, it is no more than a kind of semi-rotary, but certainly a most excellent one.—The inventor of it is a man of great ingenuity, and a thoroughly scientific and practical

man; and I have no doubt if there is any person living who can construct a good rotary engine, Mr. McDowall is the person. It is said that he greatly assisted Malcom Muir in the invention of his famous planing machine and he has long been famous among us for many useful inventions. It will take time however, to prove the superiority of his Parallelopiped.

You will perceive that in this city of mechanics, we are still doing something for the benefit of Science and Art. Our engineers feel somewhat proud of the success of the new steamers built here for the Royal Mail line, but in no instance have I heard any vain boasting or exulting at their success. As a general thing, our engineers are well educated and have perhaps the best opportunities in the world to acquire a good education in drawing and mathematics. This is owing to an excellent Mechanics Institute being founded for the very purpose of instructing workmen and especially apprentices, by good evening classes. T. McC.

Glasgow, Sept. 20, 1848.

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**Turning of Irregular Forms.**

During the last eighty years Lathes for turning irregular forms from a model, have been brought to great perfection. The machines for turning ship's block's and dead-eyes, as described in the different Encyclopedias, and the Rose Lathe, are well known in Europe and this country. In 1818, or earlier, Azariah Woolworth, an ingenious mechanic of Connecticut, invented a lathe for turning lasts, with the use of the revolving cutters, a guide and a model; these parts, viz. the cutters, guide and model, he did not claim as his, as they had been in use many years before, but his lathe enabled the mechanic to turn right and left lasts from the same model, and by a happy adaptation of its parts performed the work admirably. Woolworth after various experiments applied for a patent and obtained it in April 1820, and sold his right. Thomas Blanchard also got up a lathe, after Woolworth's, but obtained a patent prior in date; the two lathes were nearly alike, the variations were more formal than substantial; and Blanchard, as did Woolworth, disclaimed the cutter wheel, guide and model as his invention, as they had been in use for many years, and as such a claim would have made his patent void. These two conflicting rights led to litigation, but it was settled by Blanchard's buying his opponent's patent. Woolworth's patent has expired, but Blanchard's patent has been continued by Acts obtained from Congress upon the mistaken assumption that his invention was prior to Woolworth's.

The lathes of Woolworth and Blanchard could only turn a resemblance to the model, and also could add to the length without adding to the breadth, and vice versa. A set of lasts, 14 in number, of different sizes, required that number of models, and this was an expense of both time and material.

About 1842, a new lathe for turning lasts was invented by Sylvester S. Chase, an ingenious mechanic of Philadelphia, which, by the ingenious combination of its parts, enables the mechanic to produce from a single model all sizes of lasts. Chase uses the cutter-wheel, guide and model, with a combination of levers working on the principle of the Pentograph, and produces the work with rapidity and the best degree of accuracy. Chase did not patent his invention, and it is therefore common property.

The lathe of Chase has now superseded the others which were constructed on the principle of Woolworth's and Blanchard's. The lathes now made by Blanchard are made upon Chase's plan. Mr. Chase constructs lathes upon the principle he invented, and they have been found so superior as to exclude competition. Yours, &c.

Philadelphia. J. B. ELDRIDGE.

The animalcules possess the most considerable generative power in organic nature, a single individual being able in a few hours to produce several millions of beings like itself.

The principal Railway companies in England have all declared reduced dividends for the first six months of this year.