

Scientific American

NEW-YORK, MARCH 13, 1852.

To Subscribers.

This is the 26th Number of Volume 7 of the Scientific American—completing the half volume. We can send all the back numbers of the volume to new subscribers, and shall be happy to do so to as many as desire to possess them. We believe that no mechanic, artisan, inventor, or lover of useful knowledge, can be posted up on the progress of the arts and sciences, who does not take the Scientific American. The reason of this is very evident, it being the only paper exclusively devoted to collecting, arranging, and discussing questions relating to such subjects. It is the only paper in the United States that publishes an Official List of all the Patents granted every week, with the claims of the patentees. It is invaluable to all those interested in patents.

We hope our friends will send in their subscriptions as soon as possible; this volume will be the best ever published. A friend of ours has said to us, he "would willingly pay his subscription to obtain merely the mechanical engravings that appear in our columns;" they are the finest specimens of mechanical engravings on wood ever presented to the American public.

Priority of Discovery.

Steam navigation, railroads, and the electric telegraph, have so linked together the whole civilized world, that men of science and inventors live and act, as it were, in one vast hall, separated only by the arch of a mountain here, and the aisle of an ocean there, but all within the sound of the hammer of the press, which, whether it be in America, or France, Prussia, Denmark, or England, soon concentrates the whole attention of the assembly. Whenever a discovery is made in one part of the world, it is at once sent flying to another, either on an electric bolt, or the wings of steam, and in a very time it flames out in bold relief, through the columns of the press, to challenge and gain the admiration of the world, according to its grandeur or worth. There is now a general and active contest for priority in discovery, and the arbiter in the case is the first public account which is given of the discovery or invention. The press, and the means now employed to communicate intelligence so rapidly from one place to another, have stimulated the spirit of investigation to a wonderful degree. It will not do now for a man to sit quiet upon an important discovery, as did Sir Isaac Newton, for years; no, nor for months, and perhaps it is not safe to do so for a day. If he does not come forward at once, he is liable to lose the whole merit—and profits, too, if there be any—of the discovery, for who can tell but another person, in a different place, may make a like discovery the next day or week, and if he first communicates a knowledge of it to the world, he will reasonably be looked upon as the first discoverer. How many inventors have we known who procrastinated to secure their inventions for some time after they were fully matured, and, by so doing, found that others had been before them but a short time—long enough, however, to render all their toil, study, and expense nothing but mementos of their dilatory conduct. Discoveries and inventions succeed one another so rapidly, now, that it will not do for men to sleep over their matured inventions; he who is first must prove himself to be the successful competitor by appearing first at the arbitrator's stand. It is reasonable to suppose that there are many men, in various parts of the world, now investigating the same subject, or studying to improve the same machine, or they may be resolving and re-resolving the same problems. More than one may make the great and desired discovery at the same time, but he who first makes his discovery public will justly be entitled to the claims of priority, and be entitled to the honors and emoluments, whatever they may be, which flow from the legal title of originality.

It is no wonder to us why there are now so many claimants for every new and useful discovery. The struggle for priority of invention is a battle and a race, and sometimes the

race is not to the swift nor the battle to the strong, but to the wise and the prudent.

Within a very few years there has been a controversy between Prof. Wheaton and Mr. Bain, about who was the inventor of the Telegraph Clock. In 1849 there was a like controversy between Prof. Mitchell and Dr. Locke, of Cincinnati, about who was the inventor of the Electric Astronomical Clock. Quite a number of controversies have taken place between different claimants of inventions and discoveries; we do not know of a single great and good invention that has not been claimed by more than one person. These things can easily be decided now, by the rule of public arbitration. It is not enough for a man to say, now-a-days, "I studied out that invention years ago, and spoke about it to this, that, and the other person, but did not then complete it." This will not do; there never has yet been an improvement made that did not engage the attention of quite a number of persons at some time of their lives. The man who consummates and brings out his invention first, is justly entitled to be called the original inventor.

Gas for Illumination.

France claims, with England, the honor of first using gas for illumination. The first notice that we have of the production of coal gas, artificially made for illumination, is a letter published in the Philosophical Transactions, in 1739, but the said letter was addressed to Robert Boyle, the philosopher, by Rev. Dr. Clayton, of Kildare, Ireland, and Boyle died in 1691. Before coal gas was employed for public illumination, it used to be made for experiments in colleges. It was not until 1798 that it was first practically applied for lighting a building. The idea of applying coal gas for general illumination seems to have occurred first to Mr. Murdoch, a Scotch engineer, employed by James Watt, and residing in Redruth, Wales. In 1792 he commenced a series of experiments and produced gas enough to light up his own house and office. Five years after that he put up a gas apparatus in Scotland, and in 1798 he put up a gas apparatus at the engine works of Messrs. Boulton & Watt, at Soho, England. He continued his experiments for a number of years, and very little general attention was paid to them, until upon the occasion of a public illumination, when he lighted up the front of the factory so brilliantly, that the news of it soon flew through all the country, and many then wanted to claim the credit of the discovery. To Mr. Murdoch belongs the whole credit of practically demonstrating its utility, and to no one else.

Coal gas is made by placing cannel coal in a red-hot cylinder of clay or iron, and sealing it up tightly. A pipe leads off at one end, and through it the volatile parts of the coal pass off in the form of gas; this gas passes through lime water before it is allowed to enter the reservoir. The lime water absorbs the ammonia and sulphurous gases contained in the coal: the gas is thus purified, and after it leaves the lime-water it is passed through cold water, which cools and washes it. Before the way to purify coal gas was discovered, the sulphuric acid gave great trouble; it blackened white painted walls, and burned hangings, &c. This way of making gas is now in general use. It is still the cheapest gas produced.

Gas made from oil does not require to be purified. The process to make it is cheaper, but the material is dearer. The coke, or residuum of the coal which makes the gas, is taken out of the retort and used for fuel. Coal gas is composed of hydrogen and carbon. The white light is solid particles of coal in an incandescent state. Hydrogen gives only a faint blue light. Dr. Hare, of Philadelphia, was the first person who made the discovery that, by directing a stream of oxygen and hydrogen upon a piece of clay, it became incandescent, and gave out a bright light. Sir Humphrey Davy first discovered that platina became incandescent in a stream of ignited hydrogen gas.

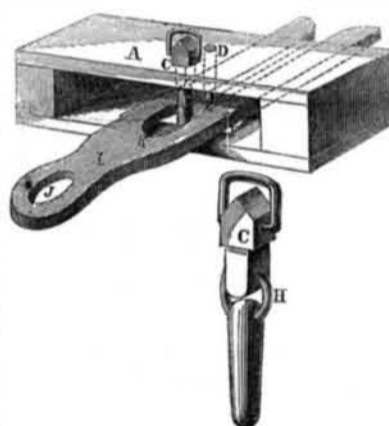
Mr. Goldsworthy Gurney, a very eminent English inventor, residing in Bude, Wales, from which the Bude Light gets its name, in 1839, passed coal gas through naphtha, and discovered that its illuminating properties were

increased by the gas absorbing some of the naphtha.

The gases of water (hydrogen and oxygen) have often been proposed for purposes of illumination, but they cannot be used like coal gas, not having any carbon in them, as they give a feeble light unless directed on a piece of lime. In 1833 a gentleman of Brussels, in Belgium, passed water gases through naphtha, and made a good light. In 1834 a Mr. Constable, in England, took out a patent for passing steam through red-hot anthracite coal, then passing the hydrogen thus generated, mixed with a certain portion of the air, through turpentine, to improve its luminosity. In 1848, J. C. Robertson obtained a patent in England, for distilling a mixture of resin, saw-dust, potash, and lime, and passing the vapors thus obtained over red-hot surfaces, thereby producing a gas fit for illumination. White's method of making water gas is to drop water into the top of a red-hot iron cylinder containing wood charcoal, at the bottom of which is red-hot scrap-iron: the iron absorbs the oxygen; the hydrogen passes off by a pipe at the bottom into a horizontal red-hot cylinder, in which it meets with the vapor of resin, which is made in another adjoining retort. The two vapors are thus mixed, and, passing off through water, are cooled, when they pass to the reservoir; this gas makes a very beautiful light.

These are the heads and particulars of the history of gas illumination,—we present them because we have received quite a number of letters on the subject lately. Let us say, here, that Dr. Gesner, of Halifax, Nova Scotia, has a United States patent for a very beautiful and economical method of making gas from petroleum. Mr. Crutchett (we do not know where he now resides) has also a United States patent for an improved apparatus for making gas.

Patent Car Platform and Coupling.



The accompanying engravings represent the improved Car Platform, in combination with the jointed self-acting pin and stationary pin, for coupling and disconnecting cars, invented by Mr. George Winters, of Portsmouth, Dauphin Co., Pa., and secured to him by patent in the month of September last.

A is the platform, commonly called the car-bumper, at each end of the cars, with a division forming an upper and lower flooring. The upper flooring has a square aperture for the square part of the jointed pin, C, to rest in, and a round aperture, D, in which a stationary pin, E, is firmly fastened. The inner face of the upper flooring is bevelled off from the square aperture so as to allow the jointed pin, C, room to operate. The lower flooring has a triangular-shaped aperture, F, bevelled off from the sides of the aperture to the inner face of the flooring, for the lower part of the jointed pin, C, to operate in the different directions; the jointed pin operates as a self-acting coupling and disconnecting pin, with a square head at the top, having a handle or lever attached to the head. The pin is made square from the head to the joint, H; the lower part of the pin is rounding, and is of a length to suit the platform. I is the half coupling or forked-tongue, formed by a groove in front, and two oval apertures or eyes. By the eye, J, this half coupling, I, is connected to one car, whilst the centre eye, K, receives the jointed pin, C, and thus connects the cars. The forked ends of the coupling, I, pass on each side of the stationary pin, E, which is located behind the jointed pin, C, which serves as a fulcrum for the forked ends to operate on, and whenever the front car is thrown off the track,

the lower part of the jointed pin, C, is drawn to the side, and immediately disconnects itself from the half coupling, I.

The claim is for the shape and construction of the improved Car Platform, in combination with the jointed self-acting pin, stationary pin, and grooved half-coupling, as described, for the purpose of coupling and disconnecting cars.

More information about rights, &c., may be obtained by letter addressed to Mr. Winters.

McCormick's Reaping Machine Claimed as an English Invention.

Petitions for an extension of the patent of Mr. McCormick, we see, are now before Congress. It was extended, we believe, once before. We see it stated, in some papers, that Mr. McCormick recently gained "a suit in the Supreme Court of the United States, sustaining his title as an original inventor. This was an appeal from the Circuit Court of the United States, in Illinois, which had awarded to Mr. Gray, McCormick's partner, half the manufacturing profits of the concern, and to Mr. McCormick one-fourth. The Court reversed this award unanimously, and awarded to McCormick one-half of the profits, and to Gray one-fourth of them."

The extract is a quotation from an exchange, and involves a great blunder somewhere,—it is perfectly unintelligible to us. It has, however, been extensively circulated. Mr. Benjamin Cheverton—the same gentleman who made such a mistake about the Scientific American, in respect to Mr. Frost's *stame*—has written a letter to the London Mechanics' Magazine, claiming the Reaper of Mr. McCormick to be an English invention. He states it was invented in 1822, by one Henry Ogle, of Errington, near Alnwick, and that it is described in Vol. 5, page 50 (1825), of that Magazine. He says, "All its principal features are identical with those of the American Machine; there is the oscillating knife, with teeth in advance, in connection with which it acts; and there is a revolving beater to lash back the grain upon the knife." He says, the only difference in the two machines is the way of oscillating the knife, "which, in the American machine, is more mechanically arranged." He says McCormick's Reaper is just a re-invention, and he writes the letter so as to prevent the Jury of the Great Exhibition printing, in their Report, that the prize awarded to Mr. McCormick was for an original invention.

All this appears to us as something passing strange. Why was not this discovery made when Mr. McCormick was in London? and why did not the Editor of the London Mechanics' Magazine detect "the re-invention" before the scrutinizing Mr. Cheverton. We have not the volume referred to in our possession, but we venture to say that the description of Ogle's machine there, makes out the two inventions to be far more dissimilar than Mr. Cheverton would now endeavor to persuade the world that it does.

A few words from Mr. Robertson, the Editor of the London Mechanics' Magazine, upon this subject, would confer a great favor, not upon us merely, but upon the whole of our American people. The invention of Mr. McCormick is original with him, this Mr. Cheverton, nor any one else, will doubt; Mr. McCormick would not have gone to England with an invention which was known to him as a re-vamped English one.

If Ogle's Reaper, described in Vol. 5 of the Mechanics' Magazine, is the same as Mr. McCormick's, it is exceedingly important that this should be known to Mr. McCormick and others, in respect to the claims of his patent. We hope that correct information on this point will soon be forwarded to us from London.

Woodworth and Emmons.

A statement has been circulated that Judge Harris, of Albany, N. Y., had testified that Emmons confessed to him before he died, that he had acted fraudulently in the case of the Woodworth patent. Mr. Keller, in his argument says, "Emmons was an instrument used by his associates to commit fraud." The father of Emmons, now an old man, says that his son never made such a confession, and that the statements about his son committing fraud are all falsehoods. It is a great sin to tell untruths about the dead, for they cannot rise up and correct the evil.



Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office
FOR THE WEEK ENDING MARCH 2, 1852

LIFE PRESERVERS—By Stephen Albro, of Buffalo, N. Y.; I claim the sectional berth bottoms, as represented.

STEAM BOILER—By Wm. Barnhill, of Pittsburg, Pa.: I am aware that it is not new to locate a cylindrical water vessel in the flue of a boiler, and also, that such vessel sometimes contained flues, but these flues were, in this instance, direct flues, and the fire-box was placed outside of the boiler proper.

I claim the arrangement of the cylindrical boiler, having return flues therein, within the flue of the main boiler, in such manner that the front end of said cylindrical vessel extends over the fire-grates, and so that nearly its whole outer surface is exposed to the action of the flames, gases, &c., which, after their passing through the annular flue, proceed to the chimney, through the small flues in such cylindrical vessel.

[Not very different from the one on page 192 Sci. Am.]

GRAIN DRYERS—By H. G. Bulkley, of Kalamazoo, Mich.: I claim so arranging an open steam box or pan, in connection with the fire chamber and steam chamber, and flue, for the escape heat, that the steam shall rise freely into the steam chamber, and the heat kept up by contact with the escape flues, as described, for the purpose of producing a high degree of heat, yet not so high as to injure the grain or other materials to be dried by its agency.

OMNIBUS REGISTERS—By F. O. Deschamps, of Philadelphia, Pa.: I claim the use of the ratchet wheel and its pawl, or their equivalents, for the purpose substantially as set forth, of preventing the possibility of giving a blow to the hammer by means of a recoil of the wheel.

I also claim the combination, substantially as described, of the toothed wheel to which the dial plate is affixed, with the notched cylinder and click, whereby the dial plate for registering the concealed dial plate, or any number of faces marked on the dial plates, substantially as set forth.

CHAIRS—By G. O. Donnell, of New London, N. Y.: I claim the construction and application of a metallic combination to the lock posts of chairs, so as to let the chairs take their natural motion of rocking backwards and forwards, while the metallic feet rest unmoved, flat and square, on the floor or carpet, or any other metallic affixion, substantially the same, and which will produce the intended motion.

CAST-IRON CAR WHEELS—By Orson Moulton, of Blackstone, Mass.: I claim connecting the hub and rim of railroad wheels, by curved parts, having raised or projecting ribs of cyma form on their inner sides, extending also across the inside of the rim, the said ribs on each plate being placed opposite the middle of the spaces between those on the opposite plate, and each rib terminating in the opposite plate to that on which it stands.

KNITTING LOOMS—By William Henson, of Newark, N. J.: I claim, first, the relative motions of the needles, hooks and presser, as combined, to form the looped or knitted fabric, in combination with the stops or guards on the hook bar, to prevent the pressure from coming in contact with the hooks, the whole being constructed and arranged substantially as set forth.

Second, I claim the combination of mechanism for regulating the take-up motion, according to the quantity of fabric formed, without varying the tension of the fabric, as described.

COTTON PRESSES—By Lewis Lewis, of Vicksburgh, Miss.: I claim the arrangement described, of a vertical revolving press, with toggle joint, operated by the toothed racks and fixed pinions, substantially as set forth.

PLATES OF TRUNK LOCKS—Conrad Liebrich, of Philadelphia, Pa.: I claim the guard, constructed and applied as described, by which the lock is prevented from being wrenched or torn off from the article to which it is attached, and by which the hasp is prevented from being pryed or twisted, so as to be freed from the bolt, thus obviating the necessity of the ordinary back plate, as set forth.

BLASTING ROCKS UNDER WATER—By Benj. Maillefert, of New York City: I claim the blasting of rocks under water, by placing the explosive charge on or against the surface of the rock to be blasted, and using the surrounding water as the means of resistance to the explosion, substantially as specified.

[We should like to inquire of the Patent Office if this invention is the discovery of Mons. Maillefert? We understand it to be public property—a well-known invention—nothing new at all. The whole plan, operation, and principle of it, with full illustrations, were published in the Illustrated London News, May, 1845; also in the same paper in 1849. The invention is public property, and no man has a right to a patent—it is giving away the property of the people. The patent could not be sustained in any of the United States' Courts. Those who have the Illustrated London News, as we have, of the years referred to, will be pleased to look them over, and see for themselves, that we speak only the truth.—Ed.]

CAST-IRON CAR WHEELS—Hiram W. Moore, of Bridgeport, Ct.: I claim the concave rings, formed and located as described, in combination with the spokes or braces, in the exterior ring, and the concavo-convex plate or partition, arranged and combined substantially as set forth.

MACHINES FOR PRINTING FLOOR CLOTHS—By Simon Savage, of Lowell, Mass.: I claim the arrangement of the printing mechanism, the stamping down mechanism, and the mechanism for advancing the piece of cloth, or of material to be printed and pressed, or stamped, such arrangement being as described. And I also claim the combination of the lip bar or plate, the series of bent levers, the slide bar, and the bar C, as made and operated, substantially for the purpose of seizing the selvage edge of the cloth, and moving the piece, as described.

And I also claim the combination of mechanism, for operating the coloring carriage, or imparting to it its back and forth movements and necessary intervals of rest, the said combination consisting of the rotating shaft with its circular discs and their projections, four hook bars, together with the vibrating bars, as applied together, and operated substantially as specified.

ENDLESS CHAIN HORSE-POWERS—By Theodore Sharp, of Albany, N. Y.: I claim the combination of the bent links, the revolving drums, and the pinions, constructed and operating in the manner and for the purpose described.

BRIDGING NAVIGABLE STREAMS—By Benj. F. Lee, of New York City: I claim the combination of a canal tunnel, bridge, and road, constructed and arranged substantially as described.

FRICTION CLUTCHES—By Gerard Sickle, of Brooklyn, N. Y.: I claim, first, the arrangement of the levers and arms for operating the segments, substantially as described, by which arrangement, the segments are made to bind in the V collar, or be relieved from it, as desired, the segments, when bound in the collar, remaining in that state, the points or pivots having passed the line of pressure, unless acted upon by some extraneous force, as the moving of the vibrating slide.

Second, I claim, in combination with the arrangement of levers and arms, the V collar and segments, said segments being adjusted by screw rods and nuts, as set forth.

ENCIRCLING SUSPENDER FOR GARMENTS—By H. H. Tucker, of New London, Ct.: I claim the combination of the spring or belt with the straps and the circular pads, for the purpose of sustaining garments upon the human body, arranged substantially as set forth.

BRICK MACHINES—By S. L. Speissegger, of Savannah, Ga.: I claim the employment of the plate of the travelling mould table, operating simultaneously on the rods and pistons in the moulds, in combination with the pressing plate of a steam or other press, for the formation and delivery of brick, as substantially set forth.

CAMPBENE LAMPS—By Isaac Van Bunschoten, of New York, N. Y.: First, I claim the application of a suitable elastic packing, between the wick tube and air tube, attached in any convenient manner, in campbene lamps, for the purposes as described.

Second, I claim the application of a suitable ring or chamber around the wick tube, to receive or conduct water or other fluid to the wick, so that the light is extinguished, in case of accident, as described.

COMPASSES FOR DETERMINING VARIATION FROM LOCAL CAUSES—By J. R. St. John of New York, N. Y., (assignor to the St. John's Compass and Log Company); patented in England, Dec. 27, 1851: I do not claim the invention of a new Mariner's or Surveyor's Compass, because these improvements can, in most instances, be added to compasses already in use.

But I claim the application of satellite or auxiliary needles to the magnetic compass, such needles being prepared, applied, and adjusted in the manner and for the purpose set forth, including any merely mechanical variations that shall be actual equivalents of the means employed, as described, and substantially the same as applied by me, for the purposes set forth.

[NOTE—Five of the patents in the above list were obtained through the "Scientific American Patent Agency."]

Morse's Telegraph in Germany.

We have been favored by a friend of Prof. Morse with the annexed extract of a letter, from Germany, for publication.

These testimonials from abroad must be the more grateful to Prof. Morse, on account of the hostility evinced by many of his own countrymen, and among them men who ought to be above the feeling of envy which alone seems to actuate them.

How often has Prof. Steinheil's name been held in court and in the country, as that of a prior inventor, depriving Morse of all claims of originality? Yet Steinheil, with a magnanimity which some of our learned countrymen would honor themselves by imitating, pronounces Morse's invention "unique," and recommends it instead of his own! We believe he is at the head of the telegraph system in Austria or Bavaria.

We are proud, as Americans, to see an American invention overcoming, by its own merits, European prejudices; and we are gratified that the estimable inventor finds consolation in the justice of other countries, for the harassment, slander, and infringement of rights which he suffers at home.

Thus far the courts, notwithstanding most persevering efforts to operate upon them through a misdirected public opinion, have done their best to protect his name, fame, and property, and we have no doubt they will continue to do so to the end. And we trust our esteemed countryman may live long enough, not only to hear the universal verdict which the world will pronounce in his favor but also to enjoy all the comforts and pleasures which wealth can bestow, as the reward of his ingenuity, perseverance and suffering.

Extract of a letter from Mr. Fleishman, United States Consul, to Professor Morse, dated

STUTTGARD, Feb. 1st., 1852.

"I hasten to inform you that I have succeeded in bringing the government to the final conclusion, to send you a letter acknowledging the merits of your invention, with a gold medal of Wurtemberg for Arts and Sciences. This has been semi-officially communi-

cated to me, and I hope in a few weeks letter and medal will be on their way to Baltimore where the Consul-General of Wurtemberg, Mr. Brown, will hand it to you.

I have further asked for a more important matter to you, viz., I requested the Minister of the Interior to let me have a copy of the proceedings of the Electro-Magnetic Telegraph Convention (of all German States), held at Vienna, last autumn, which concluded to employ your system in all Germany as being the only reliable and practical one, having previously tried all others, and even Steinheil, a rival inventor and a German, pronounced yours unique. You see they are more generous and liberal here than your fellow-citizens.

Wurtemberg was the first German State that adopted your system out and out, and I am sure you would be pleased to see your apparatus, which is most exquisitely finished—really it is a beautiful monument of your ingenuity.—[Phila. Ledger.]

[The Ledger enunciates the very doctrines which the friends of Professor Morse—and one United States Court only—have violated.

We wish to give every inventor his due, his just praise for his own invention, and we have never occupied any other ground. It was wrong to deny Prof. Morse a patent in England, it was wrong for him and his friends to be awarded without a jury trial—a most outrageous proceeding—the telegraph of Bain in the late trial at Philadelphia. Professor Morse's invention is unique; it is perhaps the best telegraph in the world, but it is not the only one. There are other good telegraphs, and it is wrong, very wrong, to slander the inventors of them, and not only slander but plunder them of their inventions. We have only one principle which guides us in respect to inventors, that is, justice to each one.

We feel proud of Prof. Morse's telegraph, and it has rejoiced us to see that he is reaping a bounteous reward for his invention, but while we rejoice at this, we grieve that other inventors have been only reaping the bitter fruits of persecution.

The Woodworth Patent.

The Assembly of New York, on Wednesday, last week, passed a resolution expressive of the sentiment of the people of New York, in opposition to the extension of the Woodworth Patent. The Albany Knickerbocker states that there was only one man in the whole assembly, Mr. Van Santvoord, who had the hardihood to raise his voice against the resolution. He, says the Knickerbocker, "opposed the resolution on the ground that the Legislature was travelling out of its way to advise and instruct our Senators and Representatives in Congress on a matter of a private character. Mr. Cushing knocked the stilts from under the juvenile Demosthenes from Columbia County, and showed that every man in the community was interested in preventing the further extension of the overshadowing monopoly. Col. Monroe and others followed in the same strain, demonstrating the great injustice done to the working classes of this State by the Woodworth monopoly. But four votes were recorded against the passage of the resolution."

We have received quite a number of communications on this subject lately, but have not published any of them. These communications were from parties interested in the Woodworth patent and parties opposed to it. The authors have offered to pay for them, but we considered it to be our duty not to accept the pay nor publish the articles.

We are opposed to the extension of this patent, not from personal feelings against the owners of said patent—some of these gentlemen we esteem as men; we oppose its extension upon what we conceive to be a good and honest general principle.

It may be of interest to many of our readers to know that Judge Sprague, of Boston, a short time ago, refused to grant an injunction against Mr. Norcross, of Lowell, for infringement of the Woodworth patent.

As we have great opportunities of knowing what the general feeling of our people is, about the extension, we assert, and challenge contradiction, that ninety-nine out of every hundred are opposed to it. Resolutions expressive of the feelings of the people of Pennsyl-

vania, as opposed to the extension, are now before the Legislature of that State, and will, no doubt, pass by an almost unanimous vote.

The following are the resolutions passed by the Assembly of this State:—

Resolved, (it the Senate concur), That, in the judgment of this Legislature, the sentiment of the people of this State is opposed to the passage of any law, by Congress, extending the time of any patent heretofore granted to Wm. Woodworth for a planing machine, or to his personal representatives or assignees, or any law sanctioning or giving any force or validity to the re-issue of any such patent in 1845, founded upon amended specifications; and against any law which gives to the judgment of any court, in any personal action relating to patents or otherwise, a conclusive effort upon persons who are not parties or privies to the parties, and who have no opportunity to control the minds on any such action.

Resolved, (if the Senate concur), That the Governor be requested to transmit a copy of the foregoing resolution to each of the Senators and Representatives in Congress from this State.

The Leading Chemists of Europe.

We are repeatedly asked by our correspondents, who are, at present, the most celebrated chemists of England, Germany, France, and even of America. To comply with our readers' wishes, we append a list of those most distinguished in Europe and America. It is gleaned from conversations with persons from the several countries. France—Dumas, Regnault, Laurent. Austria—Redtenbacher and Schrotter. Germany—Rose, Mitscherlich, and Bunsen. Italy—Sobrero and Peyroni. England—Faraday, Muspratt, Playfair. Ireland—Kane and Apjohn. Scotland—Gregory, Anderson, Thompson. America—Hare, Jackson, Rogers, Horsford, Dana.—[Mining Journal.]

[The above is an exceedingly meagre, and we say unjust, catalogue of the leading chemists of the world. There are names above of men who are not yet distinguished as leading men, and where is the name of Liebig—the most prominent of all at the present moment? The name of Herepath is not there for England; nor is that of Ure for Scotland. Prof. Draper, of New York, need not feel that he has been omitted, it is no censure to be omitted from a catalogue which shows it has been made up by one not fully acquainted with the names of the greatest living chemists, or else it was made too hastily—a fault in both cases.]

Oscillation of Water Falls.

At a recent meeting of the Society of Natural History in Boston, Mr. Briggs referred to a subject which had been previously discussed, namely, the oscillation of the sheet of water at Hadley Falls, which is accompanied by a loud noise and a jarring sensation which can be perceived at a great distance. It had been attributed in part to the vibration of the timber of which the dam is constructed. He had recently observed the same phenomenon at Trenton, where there is a dam of 60 feet in length, with a fall of 12 feet. Here the sheet at certain stages of water undulates through a distance, forward and back, of 3 or 4 feet, causing, by the jarring which it produces, great annoyance to the dwellers in houses in its vicinity. The dam is built of stone on a stone foundation, up to within three feet of the top, where it is constructed of timber. In this case, therefore, the oscillation cannot be properly attributed to the vibration of the dam. The phenomenon occurs when the water is about four inches deep on the dam, ceasing as it becomes deeper. Mr. Briggs found, that by inserting a board at one end of the fall, thus diminishing the width of the sheet, the oscillating immediately ceased. In fact, it was evident that it depended upon a relation between the width of the sheet, its thickness, and the air beneath it.

Of this fact every person can satisfy himself by paying attention to the falling of the water over every dam. He will see vibrations of the sheet of water always when it is thin.

Our list of claims being now printed in smaller type, our readers have at least two columns more of reading matter than they had at the beginning of this volume.