Scientific American

NEW-YORK, JANUARY 3, 1852.

Progress of Discovery During 1851.

The year 1851 has not passed away without leaving a deep impress on the present age.

The results growing out of the events which have transpired, and which will yet grow out of them, cannot be estimated in amount or circumscribed by any period of time. The grandest event, so far as it relates to science, art, manufacturers, and all industrial products, which has ever taken place since the world began, transpired during the past year; we allude to the Great Exhibition. The benefits of the World's Fair, will go out to the end of the earth, among all nations, and kindred, and tongues. Much important information was presented to our readers through our columns, by our London correspondent, relative to that great congregation of artisans and philosophers; still the Exhibition was too vast for any person to do justice to it—yea, justice never will be done to it. We expect that the inventive genius of thousands in our land and other lands has received a great impetus, and that great numbers of useful inventions, as the result of that impetus, will soon be coming to light.

A great number of very useful inventions were presented to our readers during the past year, and all the most important discoveries have been noticed and described and many of them illustrated. The first engravings we presented to our readers in 1851 were Hutchinson's machines for manufacturing barrels: McCormick's grain reaper, that agricultural machine which has created such a sensation in the Old World, was illustrated and described on page 164 of our last volume.

A series of very important articles, illustrated with views of the Patent Office, were published by us, and a reference to them will at any time repay those who are interested in that subject. The best article on the American locust,—"Cicada Septemdecim," ever published in our country, by Dr. Smith, was published on page 212, last volume. A series of very useful articles on water wheels, was also published by us. We have also published illustrations of the patents of two inventions which have perhaps made more noise in the world last year than all others; we allude to "Paine's Light," on page 249, last volume, and the Annihilator, page 1, this volume. We have endeavored to present all new and interesting inventions to our readers, and these inventions are as much a part of modern history now, as that of a seige or a battle, and perhaps more so.

We also published some views of "the pendulum experiment," and a number of articles on the same. This subject created quite an excitement, and all the philosophers in the world marched out and spoke grandly on it. It now appears to have been a discovery of evanescent worth. When we think of all that was said about the pendulum, and how quiet every thing is now about it, we confess that philosophers by their silence seem to give force to those who spoke against it and called it "a philosophic *ignis fatuus*."

Along with many very useful inventions presented by us during 1851, our readers will not forget how we pointed out the utter worthlessness of some schemes which, but for our warning voice, would have deceived many. We do not name these just now, we merely allude to them, and the reason why we have written this article at all, is to make our readers lift up their back numbers and take a retrospective view of what has been done in science and art during the past year. It is not possible for us to name all the machines we have for the first time introduced to our American public during 1851, but we wish our readers to make an examination for themselves, and they will see much to cheer us in the progress of discovery. Over nine hundred American patents were granted, all the claims of which we have published. We expect that 1852 will be a brilliant year for discoveries and inventions. We are perhaps on the verge of an era of discovery, which will throw all the past into the shade. When the past is so full of wonders, who can have a doubt of the future. A great deal has yet to be done in every department of science and art, and while there is anything to be done, our inventors must be progressing and striving to gain the prize.

A World's Fair and Crystal Palace at New York.

A short time since Mr. Riddle, our Commissioner to the World's Fair, and some others, petitioned our Common Council for permission to erect, in Madison Square, this city, a building of iron and glass 600 feet long and 200 feet wide, for an Industrial Exhibition of all nations. The petition was referred to a special committee, which reported favorably on the subject, and on Tuesday evening of last week their report, with the following resolution, was adopted:—

"Resolved, That the free use and sole occupation of Madison-square be, and the same is hereby granted to Edward Riddle and his associates, for the term of two years from the date of the adoption of this resolution, whereon to erect a building of iron and glass, for the purpose of an Industrial Exhibition of all nations, in pursuance of the petition annexed, provided that said Riddle and his associates will enter at once into an agreement, with sureties, with the City, through the Controller, that they will, during said time, erect around said square, at their own cost and expense, and at the cost of not less than six thousand dollars, under the superintendence of the street Commissioner, a good, strong, handsome and sufficient iron railing with the necessary gates, &c., similar to the railing around Washington Parade Ground, or of a patern to be approved by the street Commissioner, which shall be the property of the Corporation after the expiration of the said term hereby granted, and to restore said ground to its present condition, and to take every means to preserve the trees, &c., therein, and provided also that the price for admission to said building for individuals shall at no time exceed 50 cents."

Some of the members of the Board of Aldermen—Aldermen Miller and Shaw—boldly and sensibly opposed the measure; they thought it should be a government project, national and great in character, and one to which the world should be invited. The action of the Common Council we hold to be foolish and flagrant. If the project is carried out as proposed, it will disgrace us in the eyes of the whole world. Here, in our great Republic of 24,000,000 inhabitants, we are to have a World's Fair directly on the heels of the London one—and such a Fair, a small and ridiculous copy of the Crystal Palace. The fact is, a lot of speculators who have not souls for their country above buttons, intend to make a fine speculation out of such an affair. It is evident that the glory of their country is measured by three cent pieces, and the price of andirons. We want no such exhibition in this city, nor in our country. We would rejoice and be glad if a World's Fair, broad and national, not under the management of auctioneers and stock-jobbers, would be held in our country. We should like such an affair to be great and grand, and superior, if possible, to the London Fair,—but this small-potato contemplated crystal palace, will make us the laughing-stock of all nations. The Common Council, had no business to make such a grant as it has done to a private individual or individuals, and it should not have made it. The project is one worthy of pedlars without national pride; and if this was the spirit which managed our department at the World's Fair, we cannot feel too deeply for the fame of our Republic. The matter, however, is not finally settled. The new Corporation will probably annul the grant, as they should do. It is a shame to find men under the guise of a kind of patriotism, endeavoring to make money out of public exhibitions, personally all for themselves, but professedly all for the public. The Crystal palace, in London, was 1800 feet long; when America builds one for a World's Fair, it must be one or two hundred feet longer, not your miserable squirrel cage of 600 feet, only one-third that of the one in Hyde Park.

When speaking of this affair again, if we have to do it, we must call it Riddle & Co.'s Fair, not the "American," nor the "World's Fair." When we have a World's Fair, we don't want the building to be a slavish copy after Paxton's, but a new and original design.

Oxalic Acid.

This acid is very extensively used at the present time, in comparison to what it was a few years ago. It is an acid which may be produced by the action of nitric acid upon most vegetable substances, and especially from those which contain no nitrogen, such as well-washed sawdust, starch, gum, and sugar. Sugar is the article generally employed, and possesses many advantages over all others. The process of making it consists in employing small earthenware jars, into which the nitric acid is poured upon the sugar. The jars are placed in water baths. Five hundred weight of saltpetre, and two and a half cwts. of sulphuric acid generate enough of nitric acid to make 140 lbs., of oxalic acid. About 120 lbs. of common brown sugar is the quantity of that substance employed along with the nitric acid. Nitric oxide and carbonic acid gases are evolved by the action of the nitric acid on the sugar. Great care must be exercised to keep the jars as cool as possible, for if nitric acid is boiled upon sugar, as recommended in many chemical works, to produce oxalic acid, the most of the oxalic acid produced under the high temperature will be peroxidized, and pass off as carbonic acid. It is, therefore, very easy to make a losing business of manufacturing this acid.

Oxalic acid has a great affinity for iron, and acts very mildly upon textile fabrics; it is, therefore, the best acid known for taking out iron spots on straw hats, and it is exclusively used for this purpose by those who are most skilled in cleansing and bleaching straw hats. It is the best acid for taking iron spots out of linen, and for this purpose it is now used in a great number of families. The acid is in fine crystals, almost like common epsom salts. A few crystals of it are laid upon an iron stain on a shirt, and warm water poured on them until the crystals are dissolved: the iron spot quickly disappears. The bleachers of straw keep a vessel containing a solution of oxalic acid, about the strength of 3° Twaddle's hydrometer: in this the straw hats are immersed for about half an hour, when they are taken out and dried. Oxalic acid is now used in many families for scouring brass, such as door knobs, &c.: it should never be used for any such purpose. Oil and rottenstone are the best substances known for cleaning brass. Brass cleaned with the acid very soon oxidizes afterwards. This acid is a poison, and should be kept out of the way of children. If taken by mistake, a good antidote is magnesia, or common chalk, which should be swallowed as soon as possible afterwards.

Synthetic Chemistry---Ultramarine.

There are two very distinctive processes in chemistry, viz., analytic and synthetic; the former takes a quantity of matter and resolves it into its original elements; the latter takes those original elements, combines them together and makes up the resolved quantity of mater into its first form and quality in every sense. It may be supposed by many that if a chemist can resolve any quantity of matter to its original elements—analyse it—he can easily combine them by synthetical chemistry. This has been done in many instances and with many compounds. Water can be thus treated but many substances elude the genius and skill of the chemist to treat synthetically. The laws of synthetical chemistry are not so well understood as those of analysis, and perhaps never will.

In no single instance has chemistry witnessed a greater triumph of synthetic skill, than in the formation of lapis lazuli. This mineral had been known and used by ancient artists away back in the days of Egyptian and Grecian glory, and it had come down as the most beautiful azure color ever discovered. It remained unchanged by exposure to air or fire, and it maintained its sky blue brilliancy on the canvas, undimmed for centuries. This mineral was very dear, and previous to 1820, it was all obtained in China and Siberia. At the time mentioned, common ultramarine sold for 35 dollars per ounce, and the best quantity for upwards of $100 per ounce. This substance was analyzed and was found to be a compound of silica, alumina, sulphur, and soda, with a trace of iron. These were colorless substances, and for a long time the coloring principle eluded the grasp of the chemist. At last M. Guimet, a chemist of Lyons, in France, devoted his attention exclusively to try and make artificial lapis lazuli—ultramarine. He was encouraged by the offer of a reward of 6,000 francs by the Society of Encouragement in Paris. He gave up the idea of searching for a hidden coloring principle and tried experiments with colorless substances. He succeeded, and for a long time kept his secret, and sold his ultramarine at $11 per pound. The process was afterward discovered by other chemists in Paris, (Gmelin and Robiquet) who published the mode of making it. This beautiful pigment is now sold as low as a few dollars per pound, and a quality as good as the second quality of the old lapis lazuli, which sold for $35 per ounce, can now be purchased for a few shillings per pound. Mr. Guimet was an exhibitor at the Great Exhibition and was awarded a Council Medal for his useful discovery. He states that it may be made by rapidly igniting a mixture of equal parts of silica, carbonate of soda, and sulphur, adding a sufficient quantity of the solution of soda to dissolve the silica. The result of this is a bluish green mass, which when burned in the air, becomes the beautiful azure ultramarine.

End of the Annihilator.

Since the Annihilator was annihilated by the green hemlock cottage, in 84th street, as described in the last number of the Scientific American, Mr. Phillips published a card, in which he asserted he was *felled down*, and that a mob forcibly took possession of his apparatus and himself, and burned down the building before he had time to make his final experiment. This has been most emphatically contradicted by the committee named in our former article. They did not see Mr. Phillips knocked down; and the crowd behaved well; and along with them, we must say—and we were eye-witnesses—that Mr. Phillips's statements are incorrect and unwarranted. We early took occasion to point out the inutility of this invention—even before there was any public excitement on the subject; our reasons for so doing are before the whole community, and they all now say our predictions about its worthlessness have all been fulfilled. The whole press in this city has spoken out in the matter, and concur in our views. The Journal of Commerce has distinctly pointed out the obligations of the public to the opinions we had expressed, and the information we presented on the subject. The time has gone by—it is not now as it was at one time—for scientific (pretension, only) humbugs to delude the people. An intelligent press, devoted to such subjects, cannot be gulled nor bridled.

It will always be our duty to watch with Argus eyes the interests of the people, as connected with all such schemes.

Patents, Inventions, &c.

Our readers will bear in mind that we still continue to prepare specifications and drawings, and attend to prosecuting inventors' claims at the Patent Office, and also in all foreign countries. We have every facility at command, and constantly employ a large corps of able Examiners. Inventors who employ us are not subjected to delay in having their cases promptly presented. We have our business so systematized that but a week or ten days is generally required before the papers are ready for execution.

Petition for Extension of Patent.

On the petition of Ira Wing, of Belfast, New York, praying for the extension of a patent for sawing eaves and troughs for conducting water from buildings, &c., 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 Monday the 1st of March, 1852, 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.

☞ Reported expressly for the Scientific American, from the Patent Office Records. Patentees will find it for their interest to have their inventions illustrated in the Scientific American, as it has by far a larger circulation than any other journal of its class in America, and is the only source to which the public are accustomed to refer for the latest improvements. No charge is made except for the execution of the engravings, which belong to the patentee after publication.

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING DECEMBER 23, 1851.

To Wm. Ball, of Chicopee, Mass., for improvements in Pumps for elevating water mixed with mineral substances.

I claim the improvement by which the waste auriferous or earthy water, that leaks out of the shaft hole of the case, is saved and returned into the body of the case, and the wear of the shaft hole of the chamber prevented, the said improvement, consisting in the chamber, the wheel, and the passage, as combined together connected with the case and shaft of the fan wheel, and made to operate substantially as specified.

To Wm. L. Bass, of Boston, Mass., for improvement in Chronometric Locks.

I claim the manner of disengaging the drop lever from the notch of the bolt, from the outside of the partition when the clock is stopped, and preventing the same from being effected when the clock is in motion by means of the lifting screw in combination with the forked lever, swinging loop, and ratchet wheel, substantially in the manner described.

To Newell Wyllys, of South Glastenbury, Conn., assignor to Charles Collins, & N. Wyllys, of Hartford, Ct., for improved machine for making Leather Tubes.

I claim, first, the method of forming the blanks or sheets of the proper size and form for tubes, from leather or other suitable material, by means of the movable and stationary nippers and inclined knife, or the equivalents thereof, operating automatically, substantially as set forth.

Second, I claim the method of forming flexible tubes from prepared sheets or blanks, by means of fingers, clamps, and cement, or their equivalents, acting substantially as set forth, to bring the edges of the sheet into contact and to unite the same.

Third, I claim combining in a single machine, the operations of forming the leather or other material, into blanks, bringing the edges of the same into contact, and uniting them, so as to form a tube at a single operation, substantially as set forth.

Fourth, I claim the clamp by means of which the material is held and upon which it is formed into a tube, constructed and operating in such manner that it shall, in addition to its movements towards the other clamp, also have a longitudinal movement to withdraw from the finished tube, substantially as described.

Fifth, I claim the combination of the reciprocating diverging fingers with the reciprocating converging plates, or their equivalents, by whose action the fingers are made to seize the sheet of material, substantially as set forth.

Sixth, I claim the method of coating the edge of the sheet with cement by means of a roller or its equivalent, which receives the cement and applies it to the edge to be cemented, substantially as set forth.

Seventh, in combination with a clamp or its equivalent for supporting the edges of the sheet of material to be united, I claim a reciprocating pressing iron, actuated substantially as set forth, to press the edges together, and to set the cement.

To Perry G. Gardiner, of New York City, for Rotary Swaging Machines.

I claim the compressing, drawing, swaging, or working into shape, wrought iron car wheels and other metallic discs or swedges, suitably shaped, one of which is forced towards the other, while it, at the same time, revolves on its own centre, its axis of revolution being the same as that of the disc which is acted upon, the other die being either stationary, or having a revolving motion in an opposite direction to that of the first mentioned die, and with the same axis of revolution, the said two dies or swedges, operating substantially as described, and being moved by any competent arrangement of machinery, substantially as described.

To Julius Hotchkiss, of Waterbury, Conn., assignor to the Hotchkiss & Merriman Manufacturing Company, of same place.

I claim the fastening of those different parts of a suspender to each other, which require a permanent fastening by a metallic clasp or clamp, substantially in the manner described.

To Willis Humiston, of Troy, N. Y., for improvement in Candle-Making Apparatus.

I claim the employment of gripers for griping the wicks, drawing and suspending the candles on the frame above the moulds, by means of spring bearings by which the gripers are securely held and suspended until the next series of candles are moulded when those suspended are cut from the wick and removed in the manner described.

To G. W. Ingalls, of Concord, N. H., for improvement in Æolian Attachments.

I claim the combining with the valve stem or rod, a movable bar, or any equivalent mechanism, by which such valve stem, or the head thereof, whenever desirable, may be moved out of action with the key lever, for the purpose essentially as described.

To Lewis King, of Madison, N. Y., for improvement in Carriages.

I claim the employment or use of the chain and pulley, in combination with the dogs and slide bar, constructed and operating in the manner and for the purpose substantially as set forth; the lower ends of the dogs being raised or depressed by means of the levers (four) operated upon by the square or loop, or any other equivalent device, and the slide bar attached to or detached from the pole by means of the levers and pawl, operated upon by the bent lever, or their equivalents.

To Jno. McLain, of Circleville, O., for improvement in Harness Saddles.

I claim the sliding gauge hinge boxes, attached to the pads, so as to adjust the width of the saddle by the screws, substantially as described.

I also claim the manner of attaching the sliding gauge hinge boxes to the pads, by means of the housing between them and the top of the pad, and the set screws passing through the plate and top of the pads, substantially as set forth.

To S. D. Nims, of Palmer, Mass., for improvement in method of hanging Window Sashes.

I claim the manner described of arranging and securing window sashes in their frames, by means of grooves in the sides of the window frame that receive the edges of the sashes (or by projections from the sides of said frame or casing, that fit into grooves in the edges of the sashes), and by making one or both sides of the window frame or casing movable and elastic, by means of the springs or their equivalents.

To J. M. Patton & W. F. Fergus, of Philadelphia, Pa., for improvement in Cutters for Planing Machines.

We claim the constructing of a cutting instrument for operating upon lumber, of one or more elliptical-shaped saw or saws, placed upon an arbor, in positions so oblique to the direction of its axis, as to bring every portion of the periphery of said saw or saws, into the same perpendicular distance from the said axis of their arbor, by which the teeth of the said saw or saws are made to perform a combined rotary and laterally reciprocating cutting action in the same circle of rotation, substantially as set forth.

To James Renton, of Newark, N. J, for improvement in apparatus for making wrought-iron direct from the ore.

I claim the arrangement of a series of flat vertical tubes, or the equivalent thereof, in a vertical stack, substantially as described, when these are combined with a puddling or other furnace, as described, by means of an interposed ore box substantially as, and for the purpose specified.

I also claim combining with each of the deoxydizing tubes, as described, and at the middle and near the lower end thereof, a double inclined plane, substantially as described, to insure the equal descent of the charge of ore as described.

And I also claim, in combination with the series of the oxydizing tubes and the ore box, substantially as described, the employment of a series of adjustable inclined planes, substantially as described, to regulate and insure the equal discharge of the ore from each and from the whole series of tubes, as described.

To T. E. Shull, of Lewistown, Pa., for improvement in method of Setting up Ten Pins.

I claim attaching the pins to a disc or plate, by means of cords, in combination with the adjusting screen and guide screens, by which the pins are properly adjusted or set up on the alley, upon raising and lowering the disc or plate, as described, the disc or plate being operated by means of the cord passing over the pulleys and around the wheel, power being communicated to the shaft or by any other mechanical means.

[See Eng. on page 76, this Vol. Sci. Am].

To T. J. Sloan, of New York City, for improvement in machines for Counting Screws and Pins.

I claim the cylinder or wheel, formed with recesses in its periphery for the reception of the screws or other articles to be counted, and provided with a groove for the reception of and in combination with the detector, to indicate, mark, and register the number of screws or other articles that are delivered, the whole being constructed and made to operate as specified.

For improvements in Bolt-Heading Machines.

I claim the combination of the upsetting punch, the dies for shaping the sides of the head, the levers for working the dies, and the protuberance on the punch stock for actuating the levers, so that by the forward movement of the punch stock, the punch is caused to upset the end of the bolt, and by its retrograde movement the dies are worked, which give shape to the sides of the head, as set forth.

[By a mistake, the name of the patentee was left out of this list; it will probably be sent to us next week.]

To R. S. Tucker, of Brooklyn, N. Y., for improvements in Spinning Rope Yarns.

Spinning rope yarns upon bobbins having a movable head or heads, so that the yarn can be packed lightly upon the bobbin, in spinning, and after spinning, can be removed from the bobbin, to be transferred and hauled off into strands for cordage from the inner ends thereof, without unwinding, thus effecting a great saving of bobbins and labor.

[This is a capital improvement.]

To Wm. Wheeler, of West Poultney, Vt., for improvement in machines for Dressing Stone.

I claim the cylindrical tool holder, constructed and arranged substantially as set forth, so as to hold the tools, or chisels, and turn them in a direction to cut either way, keeping them in such position as always to receive the blows from the cams, in the same relative direction, and also incidentally to support the cam shaft by means of the cams resting against its interior, should the cam shaft spring.

To J. Ames & G. L. Wright, of Springfield, Mass., for improvement in machines for Ruling Paper.

We claim, first, the shaft and its projections operating as set forth, or any mechanical equivalent contrivances, in combination with the carrying apparatus or endless tapes, on which the sheets are received, moved and introduced to the action of the ruling apparatus, such carrying apparatus being made so as to operate, essentially as described.

And we also claim the shaft and its lifters, in combination with the carrying apparatus or endless strings, and the two sets of ruling apparatus, or contrivances, for supporting and ruling the paper on both sides, as described, such shaft and lifters, or the lifting apparatus, as it may be termed, being for the purpose of changing the overlap of the sheets, in manner as explained.

To Jacob Zimmer, of Tiffin, O., for improvements in attaching Cutters for Cutting Screws on Rails of Bedsteads.

All I claim is forming an opening in the end of the cylindrical head, so as to allow the cutter to be placed therein laterally, or inserted into its seat sideways, and securely confined in the manner set forth, whereby the cutter requires no adjustment, and is retained firmly in its position.

To John Allen, of Cincinnati, O., for improvement in Setting Mineral Teeth.

I claim setting mineral teeth on metallic plates, by means of a fusible, silicious cement, which forms an artificial gum, and which also unites single teeth to each other and to the plates upon which they are set.

I also claim to be the inventor of said cement, or compound, a full and exact description of which is given.

I also claim the combination of asbestos with plaster of Paris, for covering the teeth and plates for the purpose of sustaining them in their proper position, while the cement is being fused.

[The Patent Office is very erratic in its action. Here is a single patent granted for three distinct claims, for which we know many applicants would be ordered to apply for three distinct patents, as one could only be granted for each claim. If proof is wanted, we can furnish it.—[Ed.

DESIGN.

To Edmund L. Freeman, of Bellville, N. Y., for design for framer of presses, mantlepieces, etc.

Municipal Electric Telegraph.

We have received a pamphlet from the author, William F. Channing, M. D., describing an Electric Fire Alarm for cities. The system of Electric Fire Alarms, for cities, which is now being carried out in Boston, suggested itself at an early period to the mind of Mr. Channing, and he described its application to Fire Alarms in the Boston Daily Advertiser, in 1845. In 1845 its adoption was recommended by the Mayor of Boston, the Hon. Josiah Quincy, Jr., but it was not until the present year the plan was adopted, and an appropriation of $10,000 made to carry it out. In New York city, seven of our fire belfries are connected by telegraph wires so as to signalize from one to the other, and it is stated in the pamphlet that accounts have been received from Berlin, Prussia, of the construction of a Fire Telegraph there, but whether like the plan in New York, a mere signalizing one, Dr. Channing says, "does not appear." The Berlin one, we believe, is a mere signalizing one, and is connected with an electric clock—it is used in that city as a messenger in case of fire. The communicating wires have been recently completed,—and it is now possible to announce the outbreak of fire in any part of the Prussian capital, at every engine station within the walls in a few seconds. The watcher observes the red flame rising against the dark sky; in an instant his hand is on the wires, the message speeds along the electric line, the danger is made known to the proper officers, and in a few minutes all the means of resisting a conflagration at the disposal of a great capital can be brought efficiently to bear on the menaced point.

The Electric Fire Alarm of Dr. Channing is a great improvement on the signalizing plan, for it combines an alarm by sounds and is the most perfect system ever brought before the public; it is to be hoped that every city in our Unoin; yea, every one in the world, will, at no distant day, have Fire Alarm Telegraphs. They can be erected at a very small cost, in comparison with the great saving they will effect in communicating to every quarter of our Fire Department, in an instant, the precise localities of fires.

Boiler Tubes.

Mr. Prosser, of this city, has written a letter to the London Mechanics' Magazine, correcting an error in reference to what was stated to be a new improvement in the construction of the boilers of a new Swedish steamer, named the Berselius. It was stated that "the tubes were slightly enlarged behind the tube plate by a suitable tool." Mr. Prosser states that the tubes are fitted in this way in American boilers, and he obtained a patent for a tool to perform the operation at once. All the tubes in the Collins' line of steamers, he states, are fitted in this manner, and no engineer in the United States would think of putting them in by the old tinkering plan still employed in England.

The rooms of the New York Mechanics' Institute were burned down on last Saturday morning. The meetings will be held in the rooms of the school in Chambers street, until new rooms are prepared.

In the British Navy there are one hundred and forty-seven steamships, and thirty-two iron steamers, eleven of which are 1,500 tons burthen.