Scientific American

NEW YORK, MARCH 15, 1851.

To Our Patrons.

This number completes the half of Volume Six, Scientific American. It is our rule to take subscriptions for six months, being one dollar fer that period. Many subscribers have commenced at the half of former volumes, and we have a number who prefer to forward their subscriptions half yearly. We prefer to have our subscribers commence at the beginning of the volume, and those who now desire back numbers for this volume can be supplied. But there are many who cannot afford to pay the amount of $2 at one time, because they are laboring at very unremunerative occupations, and to them the half yearly subscription plan has conveniences of which they can and do avail themselves. We are very proud of our large number of half yearly subscribers, because, it shows that we have a great many men among us, who although not possessed of wealth, are in the possession of a taste for what is useful and instructive.

The price of the Scientific American is not high, considering the kind of information contained in our columns. We could publish a paper much larger, at less expense, if it only contained common reading matter. The quality of a paper is its principal feature, and we have endeavored to make ours the first of its kind in our country. It has taken much labor, expense, and patience to do this. Our class of readers must have a peculiar turn of mind, and a taste for scientific and mechanical information. The number of people possessing such tastes is not great in any community, hence our circulation is necessarily spread over a very wide surface. Our paper is very generally known throughout our country, still there are many, no doubt, who are not yet acquainted with us, and whose tastes, if they were, would lead them to be subscribers. Our readers have always been very kind in endeavoring to extend our circulation. No paper has had so much done for it in this way as the Scientific American. We still trust to that same kindness for continued and new favors. We try to do all we reasonably can for subscribers, by way of giving them any information they may require, and in giving advice. In this respect we are guided, we humbly trust, by truth, honesty, and candor.

Those who have patent business to transact, such as applications for patents, can have their business done by us in a very superior manner and at very reasonable rates. The members of our establishment, such as our Examiners, &c, are very competent men,—they are practically and theoretically acquainted with chemistry, engineering, and machinery. We transact a great deal of business in procuring foreign patents, and our facilities for procuring the same in Great Britain, France and all other nations, are not surpassed —if equalled, by any other establishment in our country. We have had great experience in procuring patents for American inventions, and we believe that we have given universal satisfaction.

Those who desire to be acquainted with all the claims of the patents granted at Washington cannot be without our paper. The Scientific American is the only paper in the country which publishes, officially, the claims of patents granted every week as they are issued. It contains more notices of new inventions than any other paper, and the general information contained in our columns is selected from rare and valuable sources, able contributions, and is useful and trustworthy.

In conclusion we return our sincere thanks to our subscribers for past favors, and hope for their continuance, which, by Divine blessing, we will endeavor to make of ourselves and paper more worthy, week by week.

It is our intention to keep posted up on the World's Fair, and to have a regular weekly London Correspondence, giving a description of the most interesting articles exhibited, and other useful information ; this of itself will be worth the price of subscription.

New York Historical Society---Fitch and Fulton.

A regular monthly meeting of this Society was held on Tuesday evening, last week, at the rooms of the University, and among a number of interesting papers read, was one by the Rev. Mr. Parker, of the Floating Church of our Saviour, on the shipping of the United States, and about the early attempts at steam navigation by our early inventors.

Upon the subject of Fulton's claim, Mr. Parker remarked that he could do no better than to state in the words of another, (the eloquent Mr. H. G. Tuckerman,) that "it is a very narrow view of Fulton's claims to grateful respect which estimates them solely according to the degree of originality he manifested in the application of steam to navigation. The great fact in the controversy remains indisputable, that the only inventor who persevered in giving a practical use to the knowledge already gained on the subject, and continued to try experiments until crowned with a success which introduced steam navigation, *was Robert Fulton.*

Dr. Griswold then remarked that he had read with great surprise and regret the altogether erroneous observations of the magazine writer quoted by Mr. Parker upon the subject of Fulton's experiments. At this day it was simply absurd to allege that Fulton made the first successful experiment in steam navigation. To claim such credit for Fulton, was to abandon it for the country. In England the matter had been much discussed recently, and it was easy to perceive that the claims of Symington could be maintained against those of Fulton—against any claims but those of John Fitch—since the pretensions of De Garay at Barcelona, Hulls in England, Miller in Scotland, and Jouffroy in France, were too vague and unintelligible to deserve consideration. Symington's boat was constructed in 1788, and its greatest speed was five miles an hour, upon one of the highland lakes of Scotland, and in the following year seven miles, upon the Clyde. Fitch, who was a poor man, and uneducated, possessod unquestionable genius; the vision of steamboats had haunted him half his life, and the details of his first boat had been arranged in his mind at least two years, when he launched upon the Delaware, in 1787, the *Perseverance*—the precursor of the fleets of steamers which now swarm the rivers, lakes, and seas of the world. This was *ten years* before Fulton built his boat upon the Hudson, and one year before Symington (to whom and to other forign claimants of the discovery the intelligence of Fitch's plans probably suggested all they accomplished) made his trial on Loch Dalswinton.

Mr. Griswold stated that he had written a brief memoir on the subject some years ago. This may account for the position h eassumed, but it is exceedingly ridiculous to assume such a position. It amounts to this :—"It can be proven that experiments were made in Europe with steamboats before Fulton built the Clermont, we must therefore fall back upon Fitch to prove that America made the first successful experiments." Now we say that, essentially, the Clermont made the first successful experiment. To abandon this ground—to fall back upon any other claim, is to surrender it for our country. Dr. Griswold certainly did not, as a fair historian should do, deal fairly with the claims of Hulls and Miller. They might be too vague for him but not for others.

Passing to the subject of Fitch and Fulton's experiments in Steam Navigation, Mr. Parker entered into an elaborate disquisition on the disputed question of priority. He adduced the testimony of various witnesses (three of whom were present at the meeting) to show that Mr. Fitch unquestionably made the first experiments with steam on the "Collect" in September, 1797. Mr. Fulton and Chancellor Livingston were on board Fitch's vessel on this first trip.

Mr. Parker had procured a model of the boat with which John Fitch mad) his experiments on the Collect Pond in New York, (the site now occupied in part by the "Halls of Justice,") in the year 1797. It was on the table during the evening; as well as a model of the boat of Mr. Fulton, made by Mr. John Clark, who worked on board the "Clermont" during the first trip to Albany in 1807. Mr. Clark, who is now 82 years ofage, was present at this meeting. The model of Fitch's boat, first alluded to, represented the boilers, paddle-wheels, screw-propeller, &c., used by Fitch. It was the work of Mr. John Hutchings, (now living at No 3 Westley-Place, Williamsburgh,) who assisted in setting the boiler and steered the boat for Mr. Fitch during his first experiments on the Collect, in 1797.

There can be no doubt but this boat was made for the occasion, from memory. There is one point on which we should like information, that is, all the accounts that we have read of Robert Fulton agree that he went to Europe in 1786 and did not return till 1806, and that he was experimenting in France with Joel Barlow in 1797, the very year Mr. Hutchings asserts him to have been in New York. Now is Mr. Hutchings not mistaken. Who will throw some more light on the subject. Our venerable correspondent, W. F., of Boston, who witnessed the experiments in France, we have no doubt can set the matter right.

Paine's Electric Light.

MESSRS. EDITORS—Allow me, through your paper, to defend myself from your correspondent, "J. T.," in the article "Hydrogen—Benzole," in No. 23. If "J. T." had taken the trouble to read my article before criticising it, he might both have saved himself the trouble of writing his indefinite article, and me the trouble of replying to his thoughtless insinuations and misstatements.

Several such vague notices of my article have led many persons to think that you were a believer in Mr. Paine's extravagance, and that I had corroborated his supposed discoveries; yet, in my article, I did not use Mr. Paine's name, and spoke of the affair as "an old experiment—the philosophical candle," and it does not contain any thing to lead any rational person to suppose that I attributed any discovery to him (Mr. Paine.) There is no person who knows better than yourselves that I never doubted the erroneousness of Mr. Paine's assertions as to the main features of his affair, and your own published opinions have uniformly been against him.

To define my position clearly, I will briefly state the circumstances that led to the publication of my article in your columns. First, Mr. Paine asserted that he could produce hydrogen almost without cost and use it for illumination. Second, your correspondent, "Carburetted Hydrogen," inquired how he converted the hydrogen into carburetted hydrogen. Third, Mr. Paine replied that he did not so convert it. Fourth, "Carburetted Hydrogen" replied that hydrogen could not be used for illuminating unless so converted. Fifth, Mr. Paine replied that one pint of turpentine would render 10,000 cubic feet of hydregen fit for illumination. Sixth, "Carburetted Hydrogen" denied that turpentine would render hydrogen effulgent in combination, and so did almost everybody. In this state of the affair the Scientific Committee visited Mr. Paine's house, and concluded that he burned carburetted hydrogen (rosin gas), and that he did not make hydrogen fit for illumination by passing it through turpentine.

It was no secret to me that camphene would render hydrogen effulgent in combination, and being anxious to stop the progress of deception, and well knowing that Mr. Paine would get another committee together and prove the Scientific Committee were wrong on an important point, and thus establish the chimera more extensively and deeper than before, I therefore measured a portion of turpentine and passed one ounce (12 cubic feet) of hydrogen through it, and sent you the results, viz., that I had a beautiful light. That the light was not owing to combustion of the vapor of turpentine, because cooling the gas and turpentine did not prevent it, and that the quantity of turpentine evaporated would not have afforded the light by a long way. And that the gas was not converted into carburetted hydrogen [$C^4.H^4$.], because I had passed sufficient hydrogen through the turpentine to have decomposed it many times over. But I did not assert that I placed the turpentine in a *freezing mixture*, as "J. T." erroneously asserts I said; neither did I say that the turpentine did not lose weight—but that, after passing 1 oz. of hydrogen through 3 half pints of turpentine, it was not perceptibly less (by measure), and that after passing another considerable quantity of gas through the same turpentine, it was scarcely a teaspoonful less than at first. Any person whose forehead is not in subjection to the occiput, would suppose that I was aware of the turpentine being evaporated into the atmosphere of hydrogen,—and I never supposed the hydrogen was rendered effulgent by anything else than the vapor of turpentine, but I deny that the light is "altogether due to combustion of turpentine."

Now, if "J. T." wishes to display his abilities, let him prove that the hydrogen becomes carburetted hydrogen [$C^4.H^4$.], or else let him show that the "whole illuminating power depends on the presence and combustion of turpentine," by passing nitrogen through cold turpentine and getting a bright light.

I have no fault with Mr. Paine for using the word "*catalyzed*" to indicate the effect produced by the turpentine; until the action of the camphene is elucidated, "catalyzed" will express this effect as well as any other word. Moreover "catalyzed" has no specific meaning in chemistry excepting to express something not understood, and able chemists object to its use entirely; and I think it would be as well for wiseacres to either show the atomic constitution of the altered hydrogen, or define the word *catalyzed*, before quarrelling about the gas being catalyzed.

There are two ways to put down a supposed humbug: one is to hold the theory up to the light; the other is to denounce everything the humbugger says, and rail at every one who will not join the denouncements. I prefer the former, and "J. T." may use the latter without my opposition.

And let me say to "J. T.," in return for insinuating that I have helped to build up the chimera by corroborating Mr. Paine's statements :—It is not certificates, however, for Mr. Paine which have strengthened the delusion, but such unphilosophical attempts at exposing it, as that of his. What has Mr. Colton's certificate done? Merely shown that Messrs. Colton and Paine, by being ignorant of the first principles of electrical science, and not knowing the difference between electro statics and electro dynamics, attribute the conducting power to the surface instead of the solid section; and so Mr. Paine is spoiled by his own helper; but as soon as some scientific man comes out and offers to expose the deception, and gets himself into a ridiculous position, then Paine's stock rises. Puerile conjectures as to how the thing is effected, are the very gas that has fed this *ignus fatuus*. One defect of an opposing enemy is of more advantage to an advancing army than for them to occupy a hundred impregnable positions.

"J. T." has conjectured that "these mysterious hollow wires may lead to the hiding place of veritable carburetted hydrogen." Will he but condescend to inform us how Mr. Paine manages to make the carburetted hydrogen traverse long strips of copper 1-50th of an inch thick and 4-8ths wide?—they are veritable strips, bent and bruised (I had them in my hand and saw they were not pipes), with their ends mashed up to put into a binding screw hole.

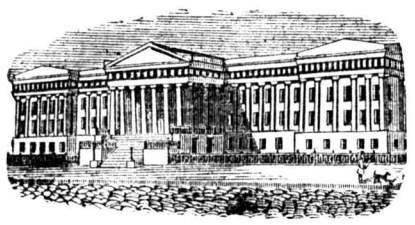
But least "J. T." should think I am, after all, a believer in Paineism, let me say that I, too, do not believe that the gas is made by the action of the magnetic electric machine, not because it is beyond my noddle to comprehend it, but because the electric current does not decompose the water in the tumbler where the copper strips are inserted before reaching the so-called electrode jar (see the wood cut in the Boston papers.)

Very truly, GEORGE MATHIOT.

Washington, March 7, 1851.

[We endorse the reference made by Mr. Mathiot respecting our knowledge of his private opinions on Paine's alleged discovery.—ED.

The last news from California exhibits no abatement in gold wonders. More than $2,000,000 of dust have arrived at this port since our last paper was issued.



☞ 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 MARCH 4, 1851.

To Wm. Brewer & John Smith, of the County of Surrey, England, for improvement in Paper Moulds. Ante-dated Feb. 12, 1849.

We claim as our invention the improved moulds for the manufacture of paper, as made in the manner herein specified, that is to say by stamping or forming such moulds, partly or wholly, in and by dies, and afterwards removing the back of such mould, by filing or other process analogous thereto.

To Junius Judson, Jr., of New York, N. Y., for improvement in Power Governor.

I claim communicating the action of governors to the valves, or other parts of machinery governed thereby, in such a manner as to cause, by accelerating or retarding the motion of said valves, large amounts of regulating power to be added to or taken from the engine by a given change of the speed when the motion of the engine becomes too much retarded, whether such retardation arises from increase of work or resistance, or from diminution of the tension of the moving force, and also small amounts of regulating power to be added to or taken from the engine, by a like change of speed, when the motion is too much accelerated, whether such acceleration arises from diminution of work or resistance, or from increase in the tension of the moving force, as herein set forth.

Second, I also claim connecting the valve arm, or part to be regulated, to the regulator, by a cam or its equivalent, having progressive rates of action, when the same is employed for transmitting the action of governors to the parts of machinery to be governed, and for the purpose of causing the motions of valves, gates, wires, or other analogous parts, to take place rapidly and slowly, for the regulation of high speeds, substantially in the manner and for the purpose set forth.

Third, I also claim making the eccentric curve of the vibrating cam to vary its position with respect to its centre of vibration, for the purpose of varying the rapidity and extent of opening of the valve, according to the pressure of steam, in the manner herein set forth.

To John W. Nystrom. of Philadelphia, Pa., for improvement in Calculating Machines.

I claim, first, the trigonometric curves of the inner scale, in combination with the graduated arms and logarithmic curves of the outer scale, the curves being laid out substantially in the manner herein described.

Third, I claim the two graduated arms, constructed in such a manner that they can be moved in connection or independently, substantially in the manner and for the purposes herein set forth.

[Has the P. O. left out the second claim in copying our list?]

To Bernard O'Neill, of Reading, Pa., for improved method of bracing the water spaces of boilers.

I claim the method herein described, of bracing and securing the shells of boilers or fire boxes of locomotives and other engines, by means of ribands of sleeves, or other starting sleeves, so that when a bolt or bolts are to be removed, to cure leaks, or to remove the sheets in the fire box, the sleeves will remain in place, serving as a guide to punch the new sheets by, and affording greater support to the shells, both in backing out the old and riveting the new bolts as herein fully described and shown.

To H. H. Snow, of New Haven, Conn., for improvement in Peppermint Droppers.

I claim, first, the combination of a peppermint dropper, by combining a sugar kettle with a revolving cutter.

Second, the combination of such dropper, either with a railway, the dropping sheet being stationary or with a movable dropping sheet, the dropper itself being stationary; or with a railway and a movable dropping sheet combined, all substantially as herein described.

To Henry Waterman, of New York, N. Y., for variable Cut-Off, regulated by the governor.

I claim regulating a variable cut-off valve, by a motion derived from and corresponding to that of the governor, by means of a toe or vibrating lever attached to the rock shaft, acted upon by revolving pins or cams, when either the cams are made to vary in position, with respect to the toe, or the toe in length, with respect to the cams, the whole machinery being constructed, and acting substantially as herein described.

To E. P. Gaines, of Nacogdoches, Texas, for improvement in dressing mill stones.

I claim the new and improved mode of dressing mill stone, which I have described as fully and correctly as I can.

RE-ISSUES.

To John Jones, of Clyde, N. Y., for improvement in Carriages. Originally patented Jan. 14, 1851.

I claim the arrangement of two bars or reaches, placed in connection with the straight reach, as above described, and in combination with the spring rod and cross bar, substantially in the manner described.

To Charles Wilson. of Springfield, Mass., for improvement in cutting stone. Originally patented March 13, 1847.

I claim the method, substantially as above described, of dressing, facing, or reducing stone and other like materials, by means of a rolling edge or edges acting against the face, or surface of the material to be worked, substantially as herein described.

DESIGNS.

To Gardner Chilson, of Boston, Mass., for Design for Furnace Registers.

I claim the new design herein above described, for a register in the form of a circle, having within and near to its outer ring, two concentric rings, the space between each of said rings being ornamented with curved lattice work, forming hyperbola-shaped openings, and a ring in its centre, enclosing an eight-leaved star, with a small circle in its centre and curved and notched branches radiating from the said ring to the smaller of the outer rings, forming irregular and heart-shaped openings, all as described.

To Gardner Chilson, of Boston, Mass., for Design for Furnace Registers

I claim the new design described for a register for furnaces, &c., of rectangular form, having within it a smaller rectangle, connected to the edge of the register by curved bars, said inner rectangle having a square in each corner, and small rectangles within its sides; said squares being ornamented with curved bars, forming the lattice work, &c., and said smaller rectangles being ornamented with semicircular and diamond-shaped lattice work, and a rectangle in the centre of the register, ornamented with irregular curved branches or bars, proceeding from its sides to a ring enclosing a four-notched leaved star; the whole forming a lattice or open work for the heat to pass through, as described.

To Gardner Chilson, of Boston, Mass., for Design for Furnace Registers.

I claim the new design, herein described, for a register of rectangular form, having within its sides, two smaller rectangles, one within the other, the space between the outer bars of the register, and the larger rectangle being ornamented with curved lattice work, and the triangular openings, and the space between the two inner rectangles being ornamented with irregular heart and diamond-shaped openings, while the centre of the register is occupied by a five oval leaved star, in a ring, with curved and notched branches or bars running from said ring to the inner rectangle, all as herein described.

To Gardner Chilson, of Boston, Mass., for design for Furnace Registers.

I claim the new design herein described, for a register of rectangular form, having within its sides a smaller rectangle, the space between the two being ornamented with the circular and diamond-shaped lattice work shown in the drawing, the inner rectangle being ornamented with irregular curved bars or branches running from its sides to a ring in its centre, which encloses a five pointed star with curved sides, the whole forming a lattice work for the passage of the heat, all as herein described.

To S. W. Gibbs, of Albany, N. Y., (assignor to Jagger, Treadwell & Perry), three Designs for Stoves.

J. S. Perry, of Albany, N. Y., for Design for Stoves.

Oars and Levers.

MESSRS. EDITORS—I wish you to look at your answer to the question of "A. V. P." in a late number of the Scientific American, and see if there is not an error. As I understand the process of rowing a boat, the speed depends upon the pressure on the end of the blade of the oar outboard. For instance, I take a 15 foot oar, 10 feet outboard and 5 feet inboard—I suppose it takes 100 lbs. on the outer end of the oar to move the boat at a given speed, consequently 200 lbs. will be required on the end inboard to balance it—this brings a force upon the oarlock of 300 lbs. I will now change the position of the hands 2½ feet from the oarlock. To balance the 100 lbs. on the blade of the oar, it takes 400 lbs. upon the point where the power is applied, making an additional pressure on the oarlock of 200 lbs.; the power applied in the last case will be double, but the pressure upon the oarlock I think will not be. In both applications of my power I wish to keep the speed of the boat the same. S. R. PALMER.

Belfast, Me.

[The great difficulty, with many, in treating on such subjects, is the want of commencing the discussion at the right point—the base line of the argument. In treating of levers, as Maclaurin has set forth in his series of short but clear articles on Mechanical Principles—the base line of the proposition is the *examen* (the needle of the ballance beam). It is quite true that "the speed of a boat depends upon the pressure on the outer end of the oar," as one condition, but not the only one, for that pressure depends entirely upon the power applied inside, and the velocity with which it is applied. Our correspondent has treated the question almost entirely as one of *statics*, whereas it is one belonging to *dynamics*. He should have commenced to apply the figure from the inside instead of the outside of the oar; and, first of all, he should have balanced the oar. Put the whole of the oar outside and then we have the whole leverage from the outside on the oar, but would the boat move an inch? No, because no one rows from the outside, and there is no direct pressure inside. Let the whole leverage be from the inside, and would the boat move? No, because there is no outside back pressure. In moving a boat there are two pressures, the inside direct pressure and the outside back pressure, and yet these two do not determine the speed of the boat, for the line of pressure or action is just as important. One oarsman may exert a force of 600 lbs., on his oar and another only 400 lbs., and yet the latter, by the line of action, about 45°, kept by his oar, will beat the former, if the former moves his oar in a line of 55°. Let us take the oar 15 feet long, and let it be balanced at 7½ feet. Now let us try to run the boat without an oarlock (fulcrum), and what can be done? Nothing. Place the oar in the fulcrum or oarlock, and exert a force of 300 lbs. at each stroke, and make 20 strokes per minute, and what force then have we got to move the boat? Why, the back pressure on the oar, is that which propels the boat, and is exactly proportioned to the amount applied which must be 300 lbs., and if each stroke is three feet, we have the boat moved 60 feet in one minute by the force applied of 300 lbs. Now, upon the principle of leverage, if we shift the fulcrum of the oar to 5 feet from the inner end, we shall have 10 feet outside, which with 300 lbs. active pressure loses one third of the leverage, but then it gains one-third in the velocity from the inside, and this exactly balances the long sweep on the outside with its greater leverage. Time, pressure, and space, must all be taken into consideration. As we extend the length of oar outside, we decrease the amount of pressure (300 lbs.) at every point of its sweep in proportion to its increase of length over the inner end, where the power is applied, and this just brings about a balance of forces. Thus, lever 15 feet, 300 lbs. pressure—15×300÷2=2250, where the oar is balanced. Change the oar to the conditions mentioned by our correspondent, and we have 15×300÷1-3 (or 5ft.)=1500; then 15×300÷2-3 (or 10 feet)=750, and this is 1500+750=2250, the exact pressure mentioned above, (1-3+1-6=1-2). When the conditions are changed, such as more power applied inside, when the lever is shortened, more speed will be obtained, and, on the other hand, if the lever is extended, with a decrease of power applied, the speed will be decreased. The changing of the oar in the lock in any sensible degree, however, must not be looked upon like the mere calculation of a common lever, the back pressure is exerted in a peculiar element, and whatever change is made, there is not only the calculation of weight, and length of lever to be taken into consideration, but the direction of all the forces—a problem which has merely been touched upon by us, in speaking of the angle of action.

The Cheap Postage Law.

The law, reducing the rates of letter postage to three cents when pre-paid, and five cents when not pre-paid, for any distance in the United States, and also reducing the postage on newspapers, goes into operation on the first of July next, with the exception of the coinage of three cent pieces, ordered by it, which is to be commenced immediately. That our readers may see at a glance what the postage on the Scientific American will be after the 1st of July next, we give the following table:—

RATES OF POSTAGE.

Delivered in the County of New York,	*Free.*
Postage within 50 miles of ditto, (per Quarter of a Year) . . .	5 cts.
From 50 miles to any distance not exceeding 300 miles from New York,	10 cts.
For any distance from 300 to 1,000 miles, ...	15 cts.
For any distance from 1,000 to 2,000 miles, ...	20 cts.
For any distance from 2,000 to 4,000 miles, ...	25 cts.
From 4,000 miles to any distance in the United States, ...	30 cts.

The above rates, it will be observed by many of our patrons, will render the expense of the Scientific American much less to them per year, while the slight difference to those who live at a great distance, we hope, will not induce them to withdraw their patronage.

Next week we shall present, aside from our usual variety of mechanical engravings, some beautiful specimens of the Seventeen-Year Locust which, it is said, will appear in the State of Virginia and Pennsylvania during the coming season, producing sad destruction to the grain crops.

New Floating Railroad.

A first rate plan for crossing at Rouse's Point between Canada and the United States. On the Vermont side a very extensive pier has been made by driving piles for some thousands of feet from the shore, to such a distance from the bank as to reduce the channel to the width of 400 feet. A large vessel has been built of such dimensions as exactly to correspond with this 400 feet channel, and upon the deck of this vessel iron rails are laid. Thus, when she is swung into the gap, there will be the continuous track required for the carriages, as there would be if there were really a bridge; and when the trains have passed over, there will be again the 400 feet of clear water way for the passage of craft.

As Congress has now adjourned, we hope to hear of fewer political speeches being made and more political capital, in the shape of common sense, invested in the national bank of all parties.

A tombstone in Jersey bears the following epitaph; "Died of thin shoes, January, 1839." A truthful epitaph.