

Scientific American

NEW YORK, MAY 3, 1851.

Paine's Light.

In our last week's number we published an illustrated description of the invention of H. M. Paine, of Worcester, Mass. The engravings and description were derived from the English patent, as published in the Repertory of Inventions, of which the agent who took out the English patent is one of the proprietors. We stated that the specification was presumed to be full and explicit, as a very small flaw—ambiguity, defect &c., destroys an English patent; and as an English patent is twenty times more expensive than an American one, it is reasonable to suppose that according to the amount expended so would care be exercised in guarding against all contingencies.

Our opinion about the invention, as derived from the specification, and we have examined it in three different London periodicals, is not a favorable one. It has confirmed us more and more in the opinion we have expressed and entertained, "that water cannot be decomposed by electricity generated by mechanical force, so cheaply as by direct chemical action," and the idea held out by Mr. Paine, that a far greater force was obtained than the mechanical force exerted, is no where touched upon in the specification—all is dark and will remain dark, according to our mode of reasoning, until the laws—the unalterable laws—of physics are changed, and that cannot be by human powers.

The machine used by Mr. Paine, with the exception of the tubular coils, was invented by an ingenious American who has long resided in England, Mr. Saxton. Dr. Wallaston decomposed water by the electric spark, more than fifty years ago, but he always found it resolved into the two elementary gases, oxygen and hydrogen, and there is nothing in the specification referred to, that would lead us to think otherwise; indeed we are perfectly positive that water cannot *all* be resolved into hydrogen, or all into oxygen, nor is there a single word said in the specification about how this can be accomplished. Whenever we see an apparatus which we can handle and use at pleasure, whereby we can by one pole alone resolve water entirely into hydrogen, or entirely into oxygen by the other pole, then we will believe, and frankly and publicly confess that we were in error. We have no selfish motive in expressing our opinions, but it is our custom not to express one opinion, and entertain a different one.

Light and Heavy Locomotives.

Mr. England, of Hatcham, England, forwarded a light locomotive on the 3rd of August, 1850, to the Edinburgh and Glasgow Railway, Scotland, under the guarantee that it was to work the express trains between Edinburgh and Glasgow, consisting of seven carriages, to keep good time, per time bill, and not consume more than 10 lbs. of coke per mile, and if it did that to the satisfaction of the company's engineer, Mr. Adie, £1,200 (\$5,820) should be paid for it. If the work was not done satisfactorily, the engine was to be taken back entirely at Mr. England's expense.

Mr. Adie has made a report on the working of this locomotive, and it is one of great interest. One of the best engines of the company was appointed to run from the opposite end of the track at the same hours, and with a similar train. These two engines worked a week in this manner, the "Little England," starting on the morning trip from Glasgow, and the large engine, the "Sirious," from Edinburgh; the result was, the little engine kept better time than the large one, and consumed only 8 lbs. 3 oz. of coke per mile, while the large engine consumed 29 lbs. 1 oz. The little engine frequently ran a mile in sixty seconds. She started with less slipping, and could be brought to stand at a much less distance than the large one. This little engine ran up an incline of 1 in 72 feet, for three miles, at the rate of 30 miles per hour, with 8 heavy carriages. She is now running the

express trains between Glasgow and Liverpool, with 5 carriages, and consuming only 6½ lbs. of coke per mile. This engine is 16 tons, and it does better work than the engines of 32 and 36 tons. There can be no doubt but the English have run to extremes in building heavy engines, and that against reason and common sense. The reform in light engines has commenced, and it is to be hoped that extremes will be avoided in this.

Reform of the English Patent Laws.

Lord Brougham has introduced a Bill into the House of Lords, which provides for a complete reform in the procuring of a patent. All the old forms and multiplicity of offices are to be pitched to *gingle de cootch*. The Lord Chancellor, the Master of Rolls, the Solicitor General of England, Scotland, and Ireland, are to act as Commissioners of Patents. These Commissioners are to make their own rules and regulations and appoint their own clerks, as is done in Washington. The petition for a patent is to be left at the Great Seal Office. The petition is to be examined by a proper person or persons, and upon a report of said Examiner, the Commissioners may cause a warrant to be prepared for the signature of the sovereign, after which the Lord Chancellor shall seal the letters patent, which shall be in force throughout the three Kingdoms, the Colonies, and the Isles. The patent fee is to be reduced to £130, or less than one half of what it now is for the United Kingdom. A large meeting has been held in Manchester, Mr. Fairbairn presiding, at which resolutions were passed recommending £10 as a high enough patent fee. The whole fee is not to be paid at once: £18, by Lord Brougham's Bill, will secure a patent for three years, after which £40 is to be paid for 4 years, then £70 for the next seven years. This is a sweeping reform, but £10 or £20 is a high enough fee, we think.

There is another reform we should like to see carried out, viz., to abolish the huge wax seal which is attached to an English patent. Let there be an embossed parchment seal used in its stead. It is one of the most foolish things imaginable to see a lump of wax weighing 7 lbs. attached to every English patent. Let our friends across the water ask for relief from the *pumpkin seal*.

The London Well Waters—their Action on Lead.

In a lecture recently delivered before the London Chemical Society, by M. Noad, so well known in America by his book on "Chemical Analysis," he described the results of investigations made by him on the waters of various London wells. In one well (Highgate) he got 12.57 grains of saline contents in the water: silica, 0.1120; sulphate of potash, 2.1306; sulphate of soda, 1.1894; chloride of sodium, 1.2040; chloride of lime, 0.7390; nitrate of lime, 5.0150; nitrate of magnesia, 2.1331—12.5231. This water exerted a powerful action upon a leaden cistern in which it was kept; this was attributed to the extraordinary amount of nitrates in the water, the well not being far distant from an old churchyard. M. Noad stated that although the nitrates were not unwholesome in water, their powerful action upon lead should be strictly guarded against, and he emphatically warned the public against the practice of allowing any water intended for domestic use to remain stored up in leaden vessels. He had analyzed the waters from a spring in Clapham which exerted a powerful action on lead, and this water contained an abundance of those salts which chemists termed "preservative salts;" not a nitrate among them. They were, silica, 0.24; carbonate of lime, 15.09; carbonate of magnesia, 13.97; sulphate of lime, 15.32; sulphate of potash, 6.79; sulphate of soda, 10.77; chloride of sodium, 11.46; organic matter, 4.10—77.74. This water corroded lead with such remarkable energy that a thin cistern, in which it was retained, was eaten into holes in six months; the oxide of lead could be skimmed from the surface of the water. The corrosion took place in the summer months, and was attributed to the organic matter in the water. The artesian well waters of London also act with energy on lead.

This is not attributable to organic matter in them, as they are very pure, but to the alkaline qualities of the water. We must say that people cannot be too careful of the waters they use. Some are more sensitive to lead poisons than others, but they are dangerous to all, and therefore should be guarded against with untiring vigilance.

Quick Passages. Lieut. Maury's Charts.

Quite a large document of 126 pages, and well printed, has been issued by the authority of the secretary of the navy, Honorable William Graham, and the Chief of the Bureau of the Ordnance Department, Commodore Warrington. The document is a very important one, as it contains the investigations of Lieut. Maury, of "the winds and currents of the sea." It states that of all the vessels which arrived at San Francisco from Atlantic ports, in 1850, the six American vessels which made the shortest passages had "wind and current charts" on board, and the six without these charts, which made the next shortest, averaged 14 days longer.

The wind and current charts of Lieut. Maury embody the results of the experience of officers in both public and private vessels, and numberless voyages through a long course of years. In regard to winds and currents in all parts of the ocean, they afford certain aids for shortening the average time of vessels in their passage to foreign ports, and even along our coast. The track of vessels and the character of winds, in a series of years and months, are given without confusion, by means of varied colors, symbols, and characters. Lieutenant Maury's charts are receiving increased attention from foreign ship-owners, more especially the British, who see in the aids they furnish, and a practical application of the principles they have evolved, a sure means of increasing their knowledge and making rapid passages.

The winds and currents of the sea may be said to be a new and perfectly original branch of nautical science, of which Lieut. Maury is the founder, the enthusiastic and learned investigator.

On the 16th inst., Lieut. Maury sent Commodore Warrington a very singular and important paper, as a "Notice to Whalers." It was derived from investigations carried on at the National Observatory, "with regard to the migratory habits and places of resort of the whale—sperm and right." He believes that the right whale of the Southern Ocean is quite a different animal from the whale of the North, and that the two are separated by an impassable barrier. The whale found on the east and the one on the west, in the Northern ocean, is the same,—showing that there is communication by sea around the North Pole. This interesting piece of information was called to the notice of Lieut. De Haven, when he left on his expedition in search of Sir John Franklin; and he was so much impressed with the information that he was going to observe the whales in the northern seas, and follow them as pilots. We hope the American expedition will come out at the west and discover the North-west Passage. Lieut. Maury believes the temperature of the sea to have much to do with the whale—the right whale delighting in the cold, and the sperm whale in warm water.

Woodworth Patent Case.

U. S. Circuit Court, Phila. Before Judge Grier, April 23d: Sloat vs. Spring. The jury in this case brought in a verdict for the plaintiff establishing the following points:

1. That William Woodworth was the original inventor of the planing machine patented Dec. 25, 1828.
 2. That the re-issue patent for July 8th, 1845, embraces the same principles as the patent of 1828.
 3. That the machine of defendants does infringe on the amended patent of July 1845.
- The Judge said that he entirely concurred in the finding of the jury. He hoped that there never would again be found persons willing to come into court and swear that Wm. Woodworth was not the inventor of the planing machine for which he had received a patent. The title had been tried in nearly every Circuit

Court in the United States, and after twenty-three years' litigation, all of which had terminated the same way, it was time to put an end to these suits. He would hold hereafter that the man who would come into court and swear that Wm. Woodworth was not the inventor of the planing machine was *prima facie* guilty of perjury. He hoped that counsel would not encourage any more opposition to the Woodworth patent, and would not permit persons to come into court and under oath testify to a matter which was manifestly different from the testimony they gave.

SHOWER BATHS.—In the United States Circuit Court at Baltimore, Monday the 21st, before Judges Tanney and Heath, as we learn from the Americans of that city, the case of Ephraim Larrabee vs. Cortlan & Co., an action to recover damages for an alleged infringement of a patent right for the manufacture of shower-baths, was concluded by a verdict for the defendants. The plaintiff's counsel declined going before the jury, and a verdict was taken for the defendants under the instructions of the court. The case will be carried up to the Supreme Court by the plaintiff.

American Iron Houses.

It is well known that Mr. Bogardus, of this city, one of the most ingenious men that ever lived, is the inventor of the first iron house erected in America. This building is situated on the corner of Centre and Duane streets, this city, and is used by Mr. Bogardus as a manufactory. The last number of the Illustrated London News, has a beautiful wood engraving of this building, and it speaks in flattering terms of its beauty and construction. Although iron houses were first built in England, it generously admits that the said iron house is more ingenious and is superior to any ever built in England. Quite a number of these houses have been erected in this city; and a fine new building, about being finished in Baltimore, by Mr. Bogardus, has been highly praised for its architectural beauty and strength of construction. We take pleasure in recording our countrymen's efforts in ingenuity, taste, and skill.

Death of Commodore Barron.

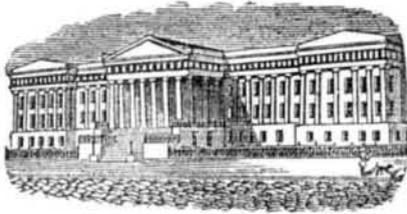
The death of this distinguished officer took place at his residence in this city, yesterday afternoon about 5 o'clock, when he breathed his last sigh without pain and in full possession of the faculties of his mind. Commodore B. was in the 83d year of his age, fifty-three of which had been spent in the naval service of the United States, having entered the Navy on the 9th of March 1798.—[Norfolk, Va., Daily News, April 21.]

[Commodore Barron was a very ingenious man and patented several very meritorious inventions. He took out a patent about 1830, we believe, for a fan moved by clock work to ventilate chambers and vessels. This invention we have seen revamped a dozen times since then by others, but he was the original inventor. He has lived to a good old age, and his life has been chequered with much of "weal and woe."

We hope our friend Fitzgerald, of the Philadelphia "City Item," will not omit to assign a proper place to us in the Great Pedestrian Tour of Editors. The programme seems so admirably arranged that we should dislike much to be among the missing. Could we not be yoked in with Mr. Scott or Mr. McMakin, in consequence of the corresponding attitude which exists between us.

Removals at Washington.

We see it stated that De Witt C. Lawrence, Chief Clerk of the Patent Office, has tendered his resignation, to take effect on the 1st July, also that Robert Mills, superintendent of buildings, is to be removed and W. P. Elliott appointed in his place. The person who is stated to be appointed in the place of Mr. Lawrence, is Gen. Roger Weightman. We see it stated, also, that the Secretary of the Interior has appointed Mr. Stansbury, (who kicked up the dust lately) to take drawings of, and make a report of the exhibition buildings. This is a job for which the patent fund we hope will not have to pay; we will keep a look out and watch this affair.



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 APRIL 22, 1851.

To Jonathan Ball, of New York, N. Y., for improvement in means of Renovating and Converting Sight.

I claim the cups and caps, to produce a pressure upon the periphery, in case of old age, or front of the eye, in case of near sight, which will increase or diminish its convexity, as the nature of the case may require, with their application as set forth, using for that purpose any of the materials named in the above specification.

To C. W. Grannis, of Gowanda, N. Y., for improvement in Cooking Stoves.

I claim first, the arrangement of the flues which conduct the heated air to the space under the oven bottom, from which it is discharged into the oven at the corners thereof, and without any enlargement to permit the expansion of the air before it reaches the oven, as described, when this is combined with the arrangement of fire flues on each side thereof, as described, whereby the air, passing to the oven is heated along the whole distance of its passage, by the products of combustion from the fire place, as described.

I also claim the heating of the air in its passage through the back hot-air chambers, by combining with such air chambers and the main fire flues, the branch fire flues which pass back of the said air chamber, substantially as described.

To James Reynolds, of New York, N. Y., for improvement in machines for Gutta Serena Tubing and covering wire.

I claim the use, for the purposes specified, of feed rollers, in combination with the stomach, having a lip or mouth arranged and operating substantially as described.

To Bradford Rowe, of Albany, N. Y., for improvement in machines for Stretching Leather.

I claim the method or device of stretching leather, especially for belting, by the use of apparatus so arranged that after a piece of leather has received, by an equable strain applied to its ends for their whole width, the proper stretch that the material can bear on or along one edge thereof, if it be found that the other edge and parts intermediate between it and the first edge (from the difference in quality of fibre), has not received proper tension, the further stretching of the first side shall be stopped, whilst, by the application of the mechanical stress, at the other edge of the leather, it, and the parts between it and the first side shall be duly stretched, substantially in the manner set forth.

I claim the holding board as essential, in all leather stretching apparatus, where it can be applied in keeping the material, whilst being stretched, from contracting in width and becoming defective thereby.

I claim the holding board, with its clamps and wedges, in combination with the apparatus for stretching, for the uses and purposes substantially as set forth.

To C. W. Stearns, of Springfield, Mass., for improvement in Clogs or Pattens.

I claim the application of an elastic loop or strap attached to the sole piece, and going around the heel, substantially as described.

To Wm. Strevell & Daniel Brown, of Albany, N. Y., for improvement in machines for Stretching Leather.

We claim the construction of the stretching apparatus, by connecting the free rod to the clamp, by entering the end or tenon of the rod into a mortise with angular sides, and secu-

ring them together by a pivot pin, substantially as set forth.

To Wm. Clay, of Clifton Lodge, England, for improved apparatus for rolling tapered Metallic Rods. Patented in England Dec. 16, 1848.

I claim permitting the rollers to recede from each other, by means of the hydraulic apparatus, constructed and arranged substantially as described.

And secondly, the adjustable screw in conjunction with the apparatus claimed above, whereby bars of metal are enabled to be rolled taper for a portion of their length, and parallel for the remaining part thereof.

To Lemuel Hedge, (assignor to G. W. Hedge), of Brooklyn, N. Y., for improvement in Saw Mills.

I claim the method, substantially as described, of driving belt saws by the friction surface of two cylindrical pulleys, or drums, which gripe the saw plate below the wood which is being cut, but at some part of its tangent line, so that the strain to which it must be subjected in cutting, to keep it in the line of the tangent, shall not be at any part of its curved path; but this I only claim, in combination with straining rollers, which gripe the saw above the lumber on which it acts, the said rollers being controlled by a brake or the equivalent thereof, substantially as described, whereby the saw, during its action, is kept in a strained condition along its entire line of action, that it may cut in a straight line, and to avoid its being under tension when the flexions take place along the curved portions of its track, as specified.

I also claim, in combination with the mode herein specified, of driving a belt saw by means of cylindrical rollers or pulleys, the employment of a belt passing around the outer one of the said driving rollers, and applied to the outer surface of the saw, where it passes around the lower deflecting or guide pulley, substantially as herein described, by means of which the saw is bent by the pressure of the belt applied to its outer surface, instead of being communicated through the metal itself, thus avoiding, in a great measure, the tendency to break the metal.

And finally, I claim, in combination with the mode substantially such as herein described, of driving a belt saw, the employment of fenders or scrapers, interposed between the driving rollers and the wood to be sawed, and placed each side of the saw, as described, to catch the sawdust and conduct it away from the bight of the driving rollers or the saw, and thus avoid clogging.

To Edward Whitesley, of Boston, Mass., for improvement in Coffee Roasters.

I claim the combining or arrangement of the fire place or chamber of combustion, the roasting cylinder, and its surrounding chamber, substantially in the manner as described and represented.

Also the arrangement of the flue of the fire chamber with respect to the latter, and the enclosing chamber of the roaster, the said arrangement of the said flue consisting in carrying it over and in contact with the top of the said enclosing chamber, as specified.

I also claim the arrangement of the proving tube, within the hollow journals and central part of the roaster; not meaning to claim the device termed the proving tube, but simply the arrangement as specified.

To T. F. Wingo, of McMoresville, Tenn., for improvement in Straw Cutters.

I claim the manner herein described, of arranging one or more cutters on the periphery of a vertical wheel, at such angle with, and so extending over the face of said wheel, as will give a "drawing cut" through the straw or other material, as it falls, to the opposite side of the wheel from where it is cut; thus removing the cut material out of the way of the feeding box and uncut material, as fully set forth.

To R. Stilwell, of New York, N. Y., and E. L. Brundage, of Troy, N. Y., for improvement in Car Seats.

We claim the mode herein described, of reversing the back of car seats from one side of the seat to the other, without turning them over, by means of arms constructed and arranged as set forth, by which any desired height of back is obtained, as described.

Secondly, we claim the manner herein de-

scribed, of reversing the concave back on a movable frame, in combination with the side locking projections, as described.

To James R. Bugbee, of Boston, Mass., (assignor to J. R. Bugbee & Enoch Robinson, of Somerville, Mass.), for improved Lock and Key.

I claim the wedge or cam key and the separate bitt, or secondary wedged or cam key, in combination with the vibrating block, the key recess and the tumbler elevators; the whole being constructed, arranged and operating substantially as specified.

To Jehu Hollingsworth, of Zanesville, Ohio, for improvement in Smut machines.

I claim the manner herein described of scouring and freeing wheat of smut and other impurities, by throwing up the grain on to the inclined face of a chimney, fitted to an opening along the top of the concave, in combination with the inclined aprons, for transferring the grain from end to end of the cylinder, that it may be discharged, as set forth.

(For the Scientific American.)

Practical Remarks on Illuminating Gas.

[Continued from page 254.]

On leaving the condenser the gas still contains ingredients which are useless, and may be considered as impurities, these consist of carbonic acid and sulphuretted hydrogen, the latter of which not only burns with a slight evolution of light, and only tends to dilute the gas, but becomes very obnoxious when escaping in an apartment unconsumed; therefore it becomes necessary to remove these injurious gases before it is introduced into the premises of the consumer; for this purpose the gas, as it leaves the condenser is conducted into a purifier containing a solution of sulphate of iron, commonly called copperas; the copperas having a chemical affinity for the carbonic acid and sulphuretted hydrogen, they become partially neutralized by this operation; it is then allowed to pass into a second purifier containing slaked lime in solution, called cream of lime; this solution is obtained by the admixture of lime and water, commonly 1 bushel of the former to 24 gallons of the latter; this solution is kept in constant agitation in order to keep the lime in suspension, so that every particle of lime may be brought in contact with a particle of gas. The action of the lime upon the gas is somewhat similar to that of the copperas; the sulphuretted hydrogen and carbonic acid being absorbed by the lime and moisture, and the comparatively pure carburated hydrogen flows off deprived of its pernicious gases.

Dry Lime is often used in the place of the solution of cream of lime; the apparatus, however, being different in construction; the lime is laid upon wires, wicker work or thin iron perforated plates placed a few inches apart, the gas being introduced at the bottom and allowed to pass through this series of plates, and then conducted off from the top. This method of purification has been very generally introduced into the gas manufactories of the southern cities, but the lime solution is deemed preferable in this vicinity, both as regards cleanliness and expense.

Caustic Soda is sometimes substituted for lime, and is well adapted as a re-agent; in small works it has become very generally introduced, giving great satisfaction, and will in all probability eventually supersede the lime.

Acetate of Lead has also been employed as a re-agent for the purification of gas, but it is not sufficiently cheap to warrant its introduction on a large scale. A weak solution of sulphuric acid has also been introduced as a re-agent but never has come into general use.

The most important impurity is sulphuretted hydrogen, it blackens metals and oil paintings when it is evolved with the gas and not ignited; when burnt it forms sulphurous acid and water. The presence of this feculence may be ascertained by wetting a piece of white paper with a solution of the acetate of lead, and allowing a jet of the gas to come in contact with it; a black precipitate of the sulphuret of lead is formed; if no sulphuretted hydrogen is present the paper will only be slightly dissolved. This test should be frequently applied, and the purifiers should be replenished with

fresh material, whenever the black precipitate is formed. The ammonia, which is brought over with the gas in a greater or less quantity, burns to nitric acid and water. According to Mallet, coal affords 1-5000 of its weight of ammonia, and the gas, before entering the purifiers, contains 1-300 of its volume; ammonia is deposited in the form of salts in great quantities in the condenser pipes, and may be collected with advantage and used as a manure or applied to the arts.

After the gas has gone through the process of purification, it is conveyed to the station meter, which is an instrument constructed for measuring the quantity of gas made; and where all the gas generated by the retorts is correctly registered. The principle of the meter, and the means by which these beautiful results are attained, can easily be seen by each consumer of gas upon examining his own small meter; the principles of both being the same.

From the meter the gas passes into the gas holder sometimes termed gasometer. It is of course understood that the gas is not consumed at the same time, nor in the same quantity as it is evolved from the retorts; the primary pressure in the latter would be too strong and also too variable for the production of gas flames; to avoid these evils, large cylindrical inverted vessels are employed, open at the bottom and dipping into water, as repositories for the gas, and also are intended, at the same time, and this is of great importance, to force the gas onward to its proper destination, with just the requisite amount of pressure for burning properly at the most distant point. If more pressure is required than the simple weight of the gas-holder itself will give, it must be evident that, by adding weight, any amount of pressure required can be obtained; and if there is an over-pressure it can very easily be obviated by attaching counter weights. The pipes which convey the gas into and from the gas-holder are conducted under the reservoir of water, and are brought above the surface of the water far enough to prevent its running into and filling them; to these pipes are attached the requisite valves for shutting off and letting on the gas. When the gas-holder is in the water, it is said to be scaled—that is, rendered tight; no gas escaping through the water, its density being so much greater that it will not allow it to pass. Gas-holders are generally constructed of iron, by sheets being rivetted together, and afterwards coated with red lead or coal tar, to render them air-tight, and to prevent the oxidation of the metal.

Until within a few years, it was considered not only expedient, but absolutely necessary to confine the gas-holder, and protect it by a building; but that is mostly abandoned by the engineers of the present day, and nearly all which have been erected within the past few years are built without any covering whatsoever; and the experiment has proved eminently successful, and the necessarily great expenditure of the building is thereby saved.

From the gas-holder the gas is conveyed through a "governor" (an instrument calculated to regulate and equalize the pressure between the holder and mains) into cast-iron pipes, called street mains; these mains branch out into small ramifications, of capacity sufficient to supply the maximum consumption, wherever it is deemed expedient by the manufacturers, and the wants of the public may require. From the mains the gas is conducted through supply pipes into the premises of the consumer, where it is attached to a meter of sufficient capacity to meet the wants of the consumer, where all the gas consumed is correctly registered; and from thence it is conveyed through service pipes, at the option of the consumer, until it appears at the burner in readiness to afford its cheerful and disseminating light whenever the will shall dictate.

J. B. B.

(To be Continued.)

Sponge is becoming quite an article of commerce at Key West, Florida.

The Duke of Brunswick and Mr. Green lately went over from England to France, across the channel, in a balloon.