Scientific American

NEW-YORK, JUNE 18, 1853.

Management of the Patent Office.

The Patent Office is one of the most important departments connected with our government. It was organized for the purpose of promoting the progress of discovery and the useful arts, and to protect the peculiar rights of inventors, a class of men who have done more for the advancement of civilization, and the honor and greatness of our country, than all the political economists that have ever lived. The steam engine, the cotton gin, the spinning jenny, the power loom, the telegraph, the sewing machine, and all other useful inventions, are iron apostles of civilization; they convince without arguing, and subdue all opposition by the eloquence of action. The management of the Patent Office-administration of the laws which regulate the issue of patents—is therefore of great consequence, not only to inventors, but the whole people. The Commissioner of Patents, as the supreme head, should be acquainted with the laws of patents, a man of good judgment, of scientific ability, candor, and impartiality. The examiners should be men possessed of a thorough knowledge of the machinery and articles in their several departments, patient in investigation, industrious, sensible, generous, and impartial, so that no injustice should be done by them to any applicant for a patent. Good men, although liable to make mistakes (for none are perfect) are always willing to rectify the same when they are pointed out: while bad men, under the best laws, cannot be trusted in any capacity.

The present Commissioner of Patents-Judge Mason-has given evidence since he entered upon the duties of his office, of great ability and uprightness. He has changed the policy which was pursued by the Patent Office for a short time, and which we condemned on page 247, in reference to retaining all the fee tor rejected applications on which caveats had been filed. According to the thirds of the fees on rejected applications will hereafter be returned on all withdrawals; and we have no doubt but every useful reform which Judge Mason in his wisdom deems necessary to the good aministration of the Patent Office affairs, will be carried out at the proper time and in the proper manner.

At the present time the Patent Office is far behind, at least six months, in the examination of applications. This is very trying to the patience of inventors, and sometimes injurious to their best interests. The business of the Patent Office should always be in such a state that no application should be longer than one month in the office before it is examined. When men in any office are crowded with business, their work is oftentimes but very superficially performed. At the present moment the examining corps of the Patent Office, although very diligent, are not strong enough in numbers to perform their incumbent duties so promptly and thoroughly as they should be fulfilled. Examiners have sometimes had much extra labor, unpleasant and extended correspondence, owing to hasty adverse decisions. An applicant for a patent should always have the benefit of a doubt in the mind of an examiner, for a trial at law, after all, is the only real binding cord of legality.

We hope Congress, an addition will be made by law to and patentees, have infinitely more profession the examining corps, so as to render every department complete and effective. The present Commissioner will then have been in office to see and know exactly what is wanted, and will be the most proper person to institute and recommend such measures as will make the Patent Office the best managed of any in connection with our government.

To Correspondents.

upon, we require you to furnish us with your proper name and residence in full, or no no- application, furnish them with the names of for himself, to be convinced; that it is nothing tice whatever will be taken of them. We responsible men. We have very reluctantly but a batch of nonsence. We quote the folhave repeated this statement frequently, and thrust this subject into our columns. We lowing extract:still receive annonymous letters. They are have done it to caution the public against "I have repeatedly stated that the yielding Falls, and thence to Canada, where he will jestroyed as soon as received.

Patent Agents-A Caution.

It is well known to many of our readers that there are located in the City of Washington a vast horde of self-styled "solicitors," who profess to undertake all kinds of professional business before the different departments of the Federal Government. This class of solicitors are for the most part shipwrecked politicians, who hang about the corridors of the public buildings, something after the style of the "Peter Funks" of this city,-ready, with the most obsequious politeness, to undertake all kinds of jobs, and for very small fees. Of course, having once, perchance either by implication or in fact, been the suckers of government pappage, they are supposed to and hence they were abandoned. At the preunderstand the "ropes," and of course have more influence in the proper direction than any other class of men.

The apparent success of these professional gentlemen has had its influence upon many uninitiated into the mysteries of "official life;" and as a consequence growing out of it, Washington has become a sort of Mecca for young and Buffalo in New York has 34—the rest bemen thirsting for renown and money, who imagine that they are there easily attainable and flow directly from the large annual appropriations made by Congress.

The class of men we are now considering have really nothing but windy pretentions, great number of high pressure engines emwhich they display in long and tolerably ingenious circulars of information to the pubfalse pretenders. This is naked truth, and is apparent to all familiar with the peculiarities of Washington.

There are also located near the Patent Ofwe are acquainted with several of the highest respectability, who are justly entitled to public confidence, yet, after all, they suffer in their business and reputation by pretenders, who wondrous length and thundering sound," addressed to inventors and patentees, promising the most brilliant results.

We feel called upon, as an act of justice to ourselves and other respectable Agents, to such characters,—they are unreliable, and, like sharks, feed upon humanity, whose vitals they search after, not only in the streets and public buildings of Washington, but throughout the whole country. This nuisance became so intolerable during the administration of Mr. Burke, that he was compelled, to save the Patent Office from the disgrace of this besieging army, to post circulars of warning along the walls of the Office. This checked their operations somewhat, so far as the Patent Office was concerned, and their theatre of operation then extended to the country, so that now almost every issue of the Scientific American brings to us letters of inquiry-illegitimate fruit-in reference to some Agents who pretend a desire to purchase rights in an invention, perhaps not patented, and who accompany the request; by enclosing a professional card, so obscure in its meaning as to lead some ot our clients into the belief that they are our Washington Agents. These men derive their information about inventions and patents from notices in the columns of the Scientific American, and to some inventors they are no better than horse leeches.

We wish our own clients distinctly to understand that we are our own Agents, and act perfectly independent of any support in or around Washington. The horde of Agents who thrust their pretentions upon inventors than real merit, and cannot, as a general thing be relied upon; they are also vastly increasing, and now swarm like the locusts of Egypt, -the public must either steer clear of them or suffer themselves to be stung.

Without wishing to create a false impression in regard to worthy Patent Agents near the Patent Office, we will state, that whenever any of our readers wish to employ relia-No matter what your communications treat | ble agents in Washington to transact any but this we have been disappointed. We advise siness with the Patent Office, we will, upon , every reflecting practical engineer to read it those who have no merits of their own, but of the wrought-iron heaters has prevented remain until the middle of July.

endeavor to build themselves up at the expense | full pressure being carried, and I have so reof reliable and able men, and much to the cost of their clients.

Low Pressure Engines on the Western Waters. We understand that a low pressure steamboat named the "Jacob Strader," has been recently built for the Cincinnati and Louisville steamboats running on the Western Waters are driven by high pressure engines, but this boat is not the first low pressure that has been tried on the Ohio or Mississippi. Excellent low pressure steamboats have been faithfully tried on the Mississippi, but failed to work well in such muddy waters excepting for a short time, sent moment there are 1,205 steamboats in the United States, and out or that number there are only 362 with low pressure engines-all the rest being high pressure; the latter are nearly all employed on the Western rivers; Pittsburg has 101 high pressure boats; Cincinnati 104, St. Louis 126, New Orleans 111 West, and a number on the north-western lakes. The great number of steamboat accidents in our country caused by the explosion of steam boilers, is to be attributed to the ployed. It has long been a desideratum to obviate the dangers of explosions, and there lic. It is quite notorious that worth and can be no doubt that if the proportion of our respectability in professional life suffer in high pressure to those of our low pressure character and business on account of these steamboats were reversed, the number of boiler explosions would decrease exactly in the same ratio. On the Ohio river, where there are so many high pressure boats, the extra weight of the machinery for low pressure fice a class of men known as Patent Agents; boats has always been a great obstacle in the way of low pressure boats on that river, owing to the very low state of the water during the dry period of the year. As no effort hi- his engine consumes is a sequent of his regetherto made to introduce low pressure boats nerator, and by this logic it is not the heat back their claims by professional circulars of on the Western waters, has proved successful produced by combustion which moves his enevery one being a practical failure—we cannot place much confidence in any new effort: not, at least, until it has had a fair trial for some time. Some have supposed that the incrustations formed on the boilers of our Western boats contained considerable of the chlorate of potash, and that when the boiler flues, by neglect or otherwise became red-hot, this of the most absurd character. substance exploded and tore the boiler to fragments. Others believe that all the explosions; on the Western boats are attributable to overpressure of steam, and look upon the incrus- | derate tonnage, have lately appeared on our tation theory as a chimerical one.

Were it possible, however, to prevent scale time use condensers, grand and useful results run very fast. A new line of propellers has good surface condenser may yet accomplish the North River between New York and Althese two objects. What has become of the bany. The first one of the line has been built information which should have been spread at Newburgh. The boat is of large dimenbefor the people more than a year ago on the sions-160 feet keel; 29 feet 4 inches breadth subject of steam engines, condensers, boilers, of beam, 8 feet depth of hold. The machine-&c., by a Committee appointed by the Secre- ry consists of two double cylinder engines, ditary of the Navy, which took nearly two rect action, formed upon an improved princiyears to collect information. It appears to us | ple, the invention of John Baird, of the Highthat after so much labor and money spent, the people should know whether the members of the Committee performed their duties in a Propeller-shaft, directly under it. The conproper and masterly manner, or whether they neglected to do so. We hope that low-pressure condensing steamboats will yet be rendered practicable on our Western waters, for they are by far the most comfortable in every sense for passengers, and besides, they are more safe, with respect to lite, and more economical with regard to fuel.

Ericsson on the "Ericsson."

In the last number of "Appleton's Mechanics' Magazine," there is an article from Capt. Ericsson on his Hot Air Engines. From the exciting advertisements published about this article, as being something wonderfully great, we thought before we read it, that some acute and able reasoning, worthy of an answer, would be presented. But instead of

ported to Government. Strange to say, those who have written on the subject appear not to comprehend the importance of this fact, nor its true bearing on the question. They all confound the caloric engine with the steam engine. In the latter, when reduced Mail Co., to run on the Ohio river. All the pressure is carried, the consumption of fuel is reduced in an equal proportion-not so in the caloric engine. The principal source of heat being the regenerator, neither speed nor pressure exercises any material influence on the quantity of fuel consumed. I must here emphatically record the fact, that the quantity of fuel consumed in turning the wheels at the dock, at 41 turns per minute, differed very little from the quantity consumed under way, making 9 turns a minute. The reason is obvious; the losses by radiation, and the heat passed off through the chimney, &c., remain constant, whilst the capability of the regenenerator changes with the speed, density of air, and temperature. By increasing these the power of the instrument increases in equal ing owned in various other cities South and proportion; the more heat it receives in a given time, the more it gives back."

Capt. Ericsson has also stated that his wrought iron heaters would not yield. Those who have written on their yielding have comprehended the difficulties, if not the importance of the same, and the owners of the Ericsson now feel it. It is not true that the hot air engine (caloric engine is a wrong name) has been confounded with the steam engine, and it is not true that reduced pressure in a steam engine reduces the consumption of fuel. If he had said that high pressure steam used expansively, reduced the quantity of fuel he would have been correct. If the regenerator is the principal source of heat, why in the name of common sense does he use any fuel at all. It seems that the fuel gine, but his regenerator-some packages of wire gauze. The "regenerator" of the hot air engine is a humbug; it seems to humbug Capt. Ericsson and all the groundlings who believe that a certain quantity of heat can produce repeated effects upon innumerable quantities of matter—a perpetual motion idea

Propellers.

A number of fine steam propellers, of mowaters, and more are in progress of construction. A line of schooner-rigged propellers in the boilers of our Western steamboats, by ply between this city and various places on the use of pure feed water, and at the same Long Island Sound. They are well built and would be obtained. Is it not possible that a been established to carry freight and run on land Iron Works. The piston of each cylinder is connected to the crank-wheel pin of the denser and air-pump are placed between the cylinders; the air-pump being horizontal and double acting, receiving its motion from a link attached to one of the slides. The engine is on the Wolte principle, but is new so far as regards the construction and arrangement of its parts.

Commissioners to the New York Crystal Palace.

On the 10th inst., the British ship Leander arrived at this port with the Earl of Ellesmere on board, as the chief appointed British Commissioner; Sir Charles Lyell arrived the week before at Boston, Prof. Wilson, Messrs. Dilke, Wallace, and Whitworth, other Commissioners have also arrived. The Earl is accompanied by his lady, the Countess of Ellesmere, his son and two daughters.

The Earl is altogether too fast for our Crystal Palace folks. We believe it is his intention, as the Crystal Palace is not yet ready to open, to proceed immediately to Niaga-

Scientific American.



Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued Nom the United States Patent Office

FOR THE WEEK ENDING JUNE 7, 1853.

Converting Rotary into Reciprocating Motion—By Henry Baker, of Catskill, N. Y.: I claim the ring, with its sliding pins attached to the object to which reciprocating motion is to be given, in combination with the stud, or its equivalent, attached to the endless chain, the points or ends of the said pin being caused to project through to the interior of the ring, to catch the stud or equivalent, and being withdrawn alternately, to allow it to pass, by springs, levers, and stops, as described.

(See description of this invention or procedule

[See description of this invention on page 316,

WASHING MACHINES—By T. A. Dugdale, of Richmond, Ind: I claim combining the wash boards, cords, and floats, as described.

PROPELLERS—By Henry W. Hewet, of New York City: I claim giving to the paddles, in their circuit, a greater longitudinal than vertical motion, imparted by a crank motion, as specified, in combination with the vibratory motion of a beam or beams, derived from the same crank motion, for the purpose sepecified.

Also, in the combination above specified, making the beam or beams, slide on the fulcrum or fulcra, as specified, by means of which additional element, in the combination, I amenabled to impart to the paddle or paddles, the back motion, in the direction of the propelling action, more than the lower half of the crank motion, as set forth.

Compositions for Treating Wool—By Wm.S. Hubbell & Amos Barrett, of Kingsville, Ohio: We claim treating wool with a composition of oil and alcohol, to prepare and fit it for the several manufacturing operations, for which oil has been and is now employed.

(See description of this invention on page 65, Vol.

Door Fastener—By S. P. Kittle, of Buffalo, N. Y.: I claim the construction of the bar, having the edges, with the stop or rest having the lips constructed and arranged as described.

Also, the combination of the cap with the bar, the effect of the cap being to fill up the space between the edge of the door, when closed, and the casing, as described, all for the purpose and manner as set forth

Boilers for Cooking Stoves—By R. W. Belson, of Philadelphia, Pa.: I claim the employment of a valve, in combination with the escape tube of culinary boilers, such valve being controlled by the cover, or in any equivalent manner, as set forth.

KNOR BOATS—By Oliver Ellsworth, or Martford, Cond.: I characterst. the "Property", the to the tumbler of the lock, for the putpose of preventing the boil being forced inward, by means of any instrument from without, as described.

Second, I claim, in combination with the pin and spring, the oblique sides or angles, cavity or opening, made in the side of the case of the lock, for the purpose of converting my lock into a latch, or restoring the connectian between the outer knob and spindle, by means of the rod pin coming in contact with the oblique sides, when the inside knob turned, thereby turning the spindle and causing the rod pin to be moved out, by reason of the friction of said rod pin upon the sides of said cavity, as set forth.

Torth.

Third, I claim the introduction of a key through a door knob, for the purpose of turning the spindle of the lock, thereby causing a lock to be converted into a lock (from the outside) as described. Fourth, I claim the thumb pin or disconnecting pin, which passes through the outside knob, and into the spindle, thereby forming a connection with the rod, for the purpose of converting the latch into a latch at pleasure, from the outside of a door, as set forth.

HOSE COUPLING — By R. J. Falconer, of Washington, D. C.: I claim the employment of the slide coupling, in combination with the collars of hose, as set forth, by which I am enabled, in the case of water hose, to effect the coupling with the utmost facility, while the water is flowing through the hose

QUARTZ PULVERIZER AND GOLD AMALGAMATOR—P. G. Gardiner, of New York City: I claim the arrangement of the vibrating, pulverizing basin and amalgamating basin attached thereto, with the screen interposed between the two, said basins being converted to the same shaft, and constructed and operating as described.

(This is believed to be a very valuable invention Patents have been taken in foreign countries through

WATER CLOSETS-By Herman Goldsmith, Jr., of New York City: I claim the annular water chember at the upper part of the closet, with a valve so arranged as to open when the pan or basin closes, arranged as to open when the pan or basin closes, and allow a requisite quantity of water to pass around the sides of the pan or basin, and between the sides of the pan or basin, and the flange of the orifice, thus hermetically sealing the orifice, and preventing the escape of effluvia, said valve also closing, when the pan or basin is opened, and thus preventing the escape of water from the chamber, the valve being constructed of a sphere or ball, working over a circular opening in the bottom of the water chamber, or constructed in any other manner. I do not claim the water chamber independent of its valve, to operate as stated.

PAINTING ON CLOTH—By Leon Jarosson, of Jersey City, N. J.: I claim the painting upon cloth previously, prepared with the mordant described, that will combine chemically with colors laid on over the other, and blended by means, substantially as described, by which I give great richness to the figures, whilst the tint of each is carefully preserved, and developing and fixing permanently the colors, by steam, and restoring the cloth to its natural pliable state, by washing out the excess of coloring matter, as described

mechanism, as to be operated upon by the boat, as it approaches the bridge, in such a manner, that the boat causes the platform to move inwards and downwards, when the boat is coming into the slip, and the mechanism, or weights described, or their equivalents, cause the platform to follow the boat outwards and upwards, when the boat is leaving the slip.

(We recommend this invention to the consideration of our ferry companies, it is a humane invention, and one that should be introduced on every ferry route.)

SCREW PRESSES FOR PACKING BOXES—By Geo. W. Wight, of New York City: I claim bending the upper portion of the arms or levers from a vertical position. and tending towards each other until they reach and are joined to a cross piece or yoke, by joints, at any desired point between the centre of said yoke and the vertical portions of the uprights, thereby giving an oblique or inward direction to the hooks when the yoke is caused to rise, by the operation of a vertical screw.

(See description of this invention on page 116.

(See description of this invention on page 116 Vol. 8, gci. Am.)

Boring Rock—By Ebenezer Talbot, of Windsor, Ct: I claim the method, as described, of applying a rollet cutter or cutters, for boring or excavating tunnels and other apertures in rocks or other hard substances, by causing the said rollet cutter or cutters, or sets of rollet cutters, to cut segments of circles from the centre, or near the centre, to the periphery of the tunnel, or other excavation, with the concavity towards the machine, in combination with a motion or motions around the centre of said tunnel, to cause the said cutter or cutters to act in succession, on the entire surface to be cut away, as ession, on the entire surface to be cut away, as

ARTIFICIAL STONE—By Julius Hornig & Ludwig Suess, of Union Hill, N. J.: We claim the mode or process of forming artificial stone as described, that is to say, we claim the employment of silex, alumina, and salt, mixed and treated as set forth, and in the proportions, designated in the manufacture of artificial stone, meaning by salt the chloride of sodium, or its equivalent, as set forth.

PAPER FILES—By H L. Smith, of Cleveland, O., (assignor to H. L. Smith, of Cleveland, O., and Levi Buttles & H. A. Swith, of Ravena, O.): I claim the paper file described, with prepared adhesive leaves or margins, as a new article of manufacture.

or margins, as a new article of manufacture.

PUMPS—By L. P. & Wm. F. Dodge, of Newburg, N. Y.: We claim the combination of the cylindrical piston, constructed as described, with its valves and the induction and eduction passages, so that the water, all entering said cylinder, under pressure, alternately, at its ends, and being discharged under pressure, through the opening or openings, at its side. We alse claim the combination of the piston heads without the cylinder, with their valves, and the induction and eduction passages, when these valves are united (to insure simultaneous action), as described, the water entering through the piston heads, into the space between the same, and being dischared therefrom, through a lateral eduction orifice, the whole being arranged as described, thus dispensing with chambers and partitions, in the barrel and valves at the eduction port, preventing leakage, and rendering the pump or engine, more simple and effective, and less liable to derangement

(See notice of this invention on page 388 Vol. 7,

(See notice of this invention on page 388 Vol. 7.

COOKING RANGES By Moses Pond. of Hoston

Cooking Range—by Moss Pond. of Hoston, ments by which the hot water back is connected with the plate, and by means of which said hot water back may be either readily removed, at any time, or applied in such manner that the directions of its water pipes may be disposed, so as to accommodate the bath boiler, into which they are usually led, on whatever side of the range the said bath boiler may be placed; the said improvements consisting, first, in the connecting piece, and the attachments of it, and the hot water back, the whole being made to operate together, as set forth.

Second, in a second set of attachments (fixed on the opposite face of the water back) in combination with the first set thereof, as described.

I also claim the peculiar arrangement of flues which lead the smoke and volatile products of combustion directly around the oven, the said arrangement of flues causing the heat to course against a portion or one half of the bettom of the oven, inext into another flue, which takes it backwards and against the other portion or half of the bottom of the oven, thence up a flue against the oven, thence through a flue extending over and against a portion or half of the bottom of the oven, and conveys it to the chimney or discharge flue, not meaning to include in such arrangement the radiating chamber or space.

I also claim the two recesses and two flue plates applied to another plate, in combination with the two valve openings, their damper and cover plate,

I also claim the two recesses and two flue plates applied to another plate, in combination with the two valves openings, their damper and cover plate, as applied to the top plate of the oven frame, and used under an arrangement of oven flues, substantially as described, the same allowing of the adaptation of the oven, to either side of the fire place, or the use of two such ovens and their frame, in connection with the fire place as stated.

I also claim the improvement by which the oven can be raised and readily removed and by which the smoke is prevented from passing underneath the partition which separates the flues on top of the oven, the same consisting in the sliding or gravitating plate affixed to the partition and made to operate, as specified

as specified

[Note-Seven of the patents embraced in this week's issue were secured through the Scientific American Patent Agency.

Manufacture of Bohemian Glass.

A French company, of ample means, have purchased a tract of land at a short distance east of the Crystal Lake, near New Rochelle, where they have commenced the erection of a magnificent establishment for carrying on the manufacture of Bohemian Glass Ware .-The "Westchester News" states that the buildings will be of brick and stone, and put up in the most substantial manner. The principal building fronting the turnpike road, will be upward of 300 feet long, and four or five stories high; while in the rear there will PLATFORM FOR FERRY BRIDGES—By Gerard Sickels, of Brooklyn, N. Y: I claim applying or attaching to a ferry bridge or other boat landing, a movable platform, so arranged with any suitable branches of the business. One furnace alone

will occupy a space of fitty feet square. The | may be simply inlaid without the overlapwhole work is to be pushed most vigorously; as soon as finished quite a colony of workmen and their families are to be brought from France to carry on the business, which is expected to be very extensive. For the accommodation of the French tamilies who are expected to be employed in the establishment, about fifty dwellings will be erected by the company. New streets are being laid out around the works.

B. F. Cooke's Mode of Calking Vessels.

Fig. 1 a Cill d

In the construction of vessels the process of calking the seams so as to exclude the water, forms an important part of the operation This has heretofore been done by champering the outer edges of the planks, and then driving oakum or other similar material between them. An objection to this mode of calking is the well-known fact that the working and straining of the vessel has a tendency to throw the oakum out, and render re-calking necessary, while, at the same time, as the planks are not driven so close together, and consequently cannot form a close joint; the hull will be less stiff and rigid than is desira-

The improvements represented in the annexed engravings obviate these objections, and consist in rendering the seams watertight by placing between the edges of the planks some adhesive elastic substance or material, such as india rubber, gutta percha, or compound of both. This may be lone by each plank, and placing in the said groove a strip of india rubber, gutta percha or other elastic material, and then driving the planks

Fig. 2. Ь

closely together, the edges of the planks not being bevelled but square, so that they will form a close rigid joint. If desirable, it may be coated with a rubber cement, or compound.

In the engravings, fig. 1 represents a side elevation of a portion of the hull of the boat and figure 2 a transverse section, representing two methods of introducing the elastic calking above named, a different method being shown upon each side of the boat.

b is are the planks upon one side of the ves sel, and a a those upon the opposite side; c care the joints which are calked by grooves, e, plowed in the edges of the plank, as shown, the fact that dry meters are well known, also the into which the long strip of elastic calking is use of bellows as an attachment thereto; yours is introduced. This strip of calking may be differently arranged from any other known to us, round and tubular, or of any other required but the water meter is superior to any other. If form, so as to fill the channel, which may also be of any shape desired—the planks thus grooved or plowed are then driven together, with a coat of elastic cement between them if it is thought advisable. The calking introduced between the planks, b b, as at f, is of a different form from that at d d: in this place the planks are not grooved as in the other instance, but are planed square, and a flat piece of the elastic calking doubled and placed between the edges, thus inlaying all the joints by the elastic material. The edges of this ted to the plank upon the outside, or the joints

W. C., of Ga; R. S. T. of N. C; J. H., of N. H.

S. & K., of Mass.; W. G. M., of N. Y; A. R., of L. I.

J. E. A., of N. Y.; J. H., Jr., of Wis.; J. T. D., of N.

Y.; W. (i. M., of N. Y.)

ping, as may be required. It will also be seen that the ends of the planks and the seams of the upper works, or other parts of the vessel, may be calked in the same manner. By the above method of calking a vessel, it will be seen that the necessity for chamfering the edges of the plank is entirely obviated, and by cutting the edges square, and placing between them an adhesive elastic substance, the joint will be impervious to water, and at the same time the hull remain extremely stiff and firm, while the calking cannot be worked out by the straining or working of the vessel, as frequently occurs in the method of calking heretofore practiced. Further information may be obtained by letters addressed to the inventor, B. F. Cooke, or Boston, Mass. Mr. C. has taken the necessary measnres to secure a patent.

By the latest news from Europe, it appears that the celebrated city of Nankin had been captured by a powerful army of revolutionists who will, to all appearances, soon overthrow the present Dynasty.

TO CORRESPONDENTS.

S. B. B., of Vt.-The mere application of any well known substance to a new purpose is not patentable, and your invention is simply one of adaptation.

E. W. S., of Mass.-The Patent Office Reports for so many years back could not be obtained for any

S. G. C., of Pa.-We do not see the least advantage that you can obtain by using the carbonic acid gas from the fire, mixed with the steam, to operate your engine.

J. H. F., of Vt.-We should be pleased to have you form a club of subscribers for the Scientific American, but we cannot offer you other inducements than those laid down in the prospectus.

P. ---, of Mass.-Yours has been received and will meet with attention.

W. P., of Pa.-Your deductions appear plausable, but they will not account for all the phenomena we observe; how does it account for the various colored grains? have you tried the effect of preventing the pollen from falling upon the staminate at all. Experiments alone will determine the true theory

L. P., of Pa.-Your argument is ingenious, but it is founded upon an erroneous view of the effects of heated air; we refer you to the views embraced in the philosophilistry incommown will be subspare truth is mighty, and our views will be found to be correct; we are nowise uneasy about the fature, it will, and is, developing the sound doctrines promulgated in the Scientific American respecting Pulley, Static Pressure and Caloric Engines, Water Gas, Fire Annihilators, etc.; we mean to protect our own readers: for them we devote our energies; we are satisfied with our past labors. You find fault with our plainness; we care not for this, we expect it.

S. L. B., of Mich - You are correct, compressed air passing into water will absorb a portion of caloric from the water and render it cool; for an application of this principle see the air-cooling apparatus in No. 38, this Vol. Sci. Am.

S. L. II., of Ill .-- Yours is not "a worthless fancy," as you state, but very ingenious; you must, however, see "House's Telegraph," when you will be convinced that he has produced a machine carrying out the same idea

A. C. S, of N. Y .- Different gases have different specific gravities: air is 0.9038, carbonic acid 1.383; air is \$15 times lighter than water; a cubic foot of carbonic acid gas is therefore 532 times lighter than cubic foot of water, which weighs 62.5 lbs.

J. B. C., of Ohio-We do net see any chance for you to get a patent on the head rest for cars. The same thing, substantially, has been long known and used. You had better not apply.

A. H., of Pa.-We have examined the sketch of your improved compound car axle, it contains no new or patentable feature, and you are advised to drop it; several pertinent references could be gi-

yours is useful it is patentable, we think.

Money received on account of Patent Office business for the week ending Saturday, June 11:-

ness tor the week ending Saturday, June 11:—

J. E. A., of N. Y., \$30; E. P., of III, \$10; S. B. &

Co., of Mass. \$25; W. W., of N. Y., \$30; W. S. of
Pa, \$35; W. G. M., of N. Y., \$25; S. & K., of Mass.,
\$30; J. H., of N. H., \$15; V. S. (assignees), Belgium, \$342; J. P., of Ky, \$60; A. A., of N. Y., \$55;
W. A. H., of Canada, \$500; J. S., of Ya., \$20; J. S.
B., of Pa., \$50; T. H. T., of N. Y., \$10; J. McG., of
O., \$20; G. & B., of N. Y., \$30; A. D. G., of L. I.,
\$22; C. M., of N. Y., \$30 \$22; C M., of N. Y., \$50.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday June 11:-