

Scientific American

NEW YORK, DECEMBER 1, 1849.

Science Universal.

Science belongs to no country, and owns the sway of no regal sceptre. In the days of old we find her dwelling by the banks of the famous Nile, and anon we find her casting her shadow upon the land of Pharaoh, and taking up her brilliant abode in the Isles of Greece. Passing from the land of Pythagoras, we behold her led captive by the iron band of the Roman, soon to be changed into silken cords, in honor to that genius, which soon crowned Rome with splendid specimens of Grecian Art, and made her Academies resound with Attic eloquence and philosophy. When barbarian darkness overspread Europe like a flood—we find Science calmly seated by the Dardanelles, and also teaching in the Schools of Alexandria, once more trimming her lamp by the sacred waters of the Delta. It was a dark day for Science when the Turcoman gave her wonderful Library to the flames, and by one fell bigotted edict, swept from the face of the earth those volumes which would have displayed to us vast treasures of ancient mind, and given to us invaluable stores of ancient knowledge. We are well aware of the insane exhibitions of religious zeal displayed by almost every sect, against some kinds of books; and while we mourn for human weakness in such acts, we cannot but denounce them in the same breath, and rejoice that better days have dawned upon the world universal.

It was a happy event for Europe when the Crescent subverted the Cross on the Minarets of St. Sophia. It was then that the Grecian philosophers became again the pilgrims of science, and carried both their learning and arts into every kingdom of Europe. In Italy many fountains of knowledge were opened, and the dark clouds of Gothic barbarism began to roll up "like leaves of the forest when scorched by the fire." And soon from the far North, even from Denmark's snowy coast, the light of Copernicus arose like a star, to revolve like the beautiful system which he discovered.

Since that time science holds a universal court. She sits in the Isles of the Sea, and has had her court made up of king-men, like Bacon and Newton, and Watt and Davy, and a host of others. In Germany she has had, and still has, her great king-men also. The land of the Gaul has had her host of king-men, too, and many yet she has. And what shall we say of other lands? A new World—our own land—has her King-men and Courts of Science, and the future is bright with the most brilliant hopes. Rittenhouse and Franklin are with the dead, but though dead they yet speak, and many have arisen, and many will yet arise, in our country, like them, to place richer gifts of genius in the Treasury-house of Science.

The Emperor, Charles the Fifth, paid a beautiful compliment to science, when he stooped to serve an aged painter; and to the credit of modern kings and conquerors, be it spoken, that although they engaged in conflicts "fierce and vengeful," yet they have paid those respects to science, in her votaries, which ancient heroes paid to the priests of Delphos. A powerful foeman will bend in respect to the frail bark of his nation's enemy, when afar upon the lonely sea, if it is in search of unknown lands or rivers—on a voyage of discovery; and thus it may be said, "science reigns universal on land and sea;" and it would be well for mankind if many aspirants after worldly fame, sought to win their laurels in the field of science, rather than on the field of battle. Science seeks no pleasure in, and points to no trophies of cities laid in ashes, and garments rolled in blood. No, she sits enthroned in the temple of peace, silently watching the planets in their courses, and listening to the music of the rolling spheres,—and the time will yet come when along with pure religion, it will govern and direct the actions of all men.

An article on the "Practice of the British Courts," in relation to Patents, is necessarily left out till next week.

Interesting Patent Cases.

THE CASE OF WILSON VS. BARNUM.—PLANING MACHINES.

In our last number, we noticed that the injunction in this case was dissolved, upon certain conditions. Since that time we have learned that after the argument of both parties was closed, it was agreed that a final hearing should be considered as having taken place, and that the cause should be speeded to a hearing before the Supreme Court, on a certificate of the Judges on the following question.

Whether, according to the true construction of the Woodworth Patent, as amended, the machines made or used by the defendant at the time of filing the bill, or either of them singly, do or do not infringe the said amended letters patent?

Upon this being done, the Court made an order that the injunction should be dissolved, on defendant filing a bond in Court to the plaintiff, in ten days time, in the sum of \$10,000, with security, to account for and pay over to plaintiff all profits which should arise from the use of defendant's machines, in the event of a final decree for plaintiff, and that in the case this was not done, then that the plaintiff should, in ten days thereafter, file a bond to defendant, in \$10,000, with security, for the payment of all losses or damage defendant might sustain by reason of the continuance of the injunction; and that in such case, the injunction should stand until the final decree or further order, and if this were not done that the injunction should be dissolved without condition.

Counsel for Complainant—S. V. Smith, St. Geo. T. Campbell, Philadelphia; J. H. C. Latrobe, Baltimore; Governor Seward, New York.

Counsel for Defendant—Wm. W. Hubbell, Wm. L. Hirst, Philadelphia; E. W. Stoughton, New York.

Our readers will see how important this case was when such eminent counsel were retained. The defendant had filed his bonds.

RE-ACTION WATER-WHEELS.

On the 20th inst., before Judge Kane, Philadelphia, the case of Parker vs. Hulme for infringement of a patent for water wheels, was decided in favor of the plaintiffs—\$75 being the damages awarded.

The following questions were submitted to the jury, and found in the affirmative:

1. Were Zebulon Parker and Austin Parker the first persons to discover, and by mechanical devices to apply to use, as a motive power in re-action wheels, the centrifugal force of water revolving vertically round the shaft, and passing into and acting on the wheels in the direction of their revolution?—Yes.

2. Were they the first persons to invent and apply to use vertical re-action wheels, having two or more wheels arranged in pairs on the same horizontal shaft?—Yes.

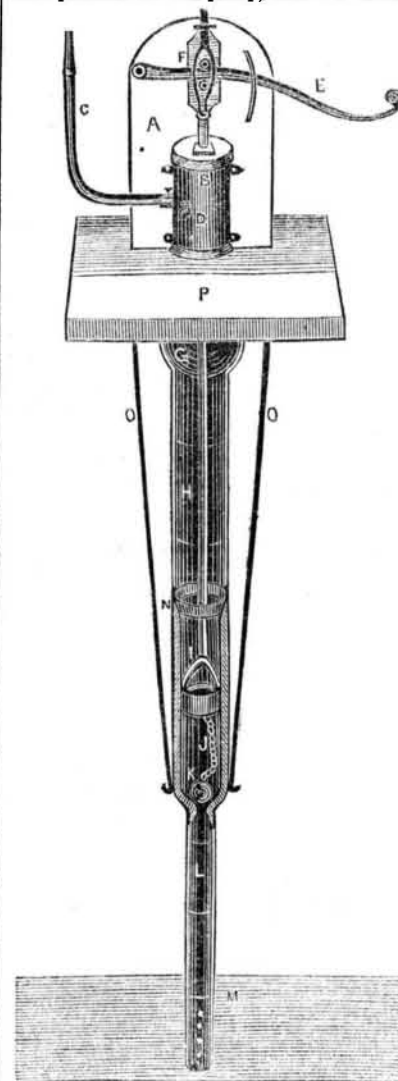
PATENT SAFE.

Benjamin G. Wilder vs. Silas G. Herring.—To recover \$20,000 alleged to be due to Mr. W. by Mr. H., on an agreement given to Mr. H. the exclusive right to manufacture and sell Wilder's Salamander Safe in the city of New York, paying to Mr. W. for said privileges one cent per pound on all safes so made and sold. There was a clause in the agreement, by which it was provided that if Mr. Wilder did not establish his right to the patent within three years from the date of the agreement, the 1 cent per pound was not to be paid. Mr. W. within the time obtained a verdict in his favor in this Court, against a party charged with infringing, by which his right to the patent was established. Mr. Herring contends the agreement to have meant that the patent should have been established in the Supreme Court of the United States, while Mr. W. insisted that a verdict in his favor in a Court having competent jurisdiction, establishing his patent, was within the meaning of the agreement. The Court in its charge, held to the latter principle. Verdict for plaintiff in amount. For plaintiff Messrs Staples. For defendant, Mr. O. Conner and Messrs. Maxtin, Strong and Smith.

Sixty tons of good anthracite coal have already been got out from the mine lately discovered by Prof. Ridgeway at Cranston, R. I.

Improved Atmospheric Lifting Pump.
This pump was invented by Dr. John B. Read, of Tuscaloosa, Ala., and patented on the 11th of last September.

This engraving is a vertical section, showing all the principal parts. A is the top box of the pump; B, is the cylinder, which is a large tube made of joints screwed together and extending downwards below the platform, P. C is the discharge tube; L the suction do., and M the water in the well, &c. E is the handle; D is a stop cock; F are two rollers, in which the pump handle plays in the upper shoulder of the piston rod, and it moves between guide bars to make the piston travel perpendicularly; G is a globular air vessel; H is the pump chamber, with the piston rod represented passing through it. I is the piston, with the upper valve, M, attached, and K is a lower valve, connected to the piston by the chain, J. The aperture at the lower valve is easily distinguished. There is a cap upon the top of the cylinder, which can be easily taken off, and the piston taken out at any time. O O are small iron rods, which with a third posterior to the pump, and not shown,



are used for supports. They are made fast below by hooks to the outside of the pump chamber.

Water is to be raised from M to I by atmospheric pressure (about 28 feet) and then it is lifted through the space above that, whatever it may be. The bottom of the pump chamber, as represented, is spherical, and from the aperture at the ball valve, the chamber gradually widens to some distance upwards, and the chamber has a flare or trumpet shape form at the valve, N. The chain is therefore made of such a length that when the piston, I, is drawn up into the trumpet shaped part at N, the ball valve, K, will be off the aperture, and the water in the chamber above the piston will pass down into the well.

The pump can be made either of wood or iron, or a combination of all these materials, to suit places, where such materials would be most economical. The claim is for the combination of the lower valve with the piston, and the chamber formed of a bell shape, to let the water pass down into the well, as described, to prevent it from freezing; also to take up the lower valve along with the piston, when required. This is a valuable improvement on the atmospheric lifting pump.

We would state here that the professional

duties of the Doctor prevents him from giving any attention to the introduction and sale of his invention, and he is desirous to sell or make some agreement with persons who may desire to make a good investment. Letters (p. p.) to him will meet with prompt attention.

Paine's Electric Light.

"A man's useful inventions subject him to insult, robbery, and abuse."—FRANKLIN.

GENTLEMEN:—The above forcible remark of the "Lightning Bottler" must have been called forth by some such an attack as your correspondent, "A Gior," has seen fit to make on your humble servant. If "A Gior" has, as he says, read my communication with interest, he is aware that the tenor of my statements is not prospective—that I speak of what has been done publicly, and of what is continually doing, and yet "Gior" pleases to express his doubts because, forsooth, the results conflict with "well known indisputable facts in chemical science." There was a time, I believe, when people spoke of the four elements as indisputable facts—the incompressibility of water was once an indisputable fact, and the universal, indisputable fact of the fixidity of the earth was once demonstrated, and satisfactorily to his well known principles, by a philosopher in the South Seas, by placing his calabash in such a position that, if the earth did roll over it would be capsized. I believe that the result is too well known to repeat it here.

When "Gior" cites a single instance where a valuable invention has been protected by a patent law, from piratical infringements or ruinous law suits, I will notice his remarks on the subject.

I heartily agree with "Gior" in his remarks on the subject of review; but how can he review a subject of which he is totally ignorant,—is he aware that water is a simple substance—and oxygen water held in solution by positive Electricity, and hydrogen by its negative? Is he aware that within a year past the electric fluid has been collected and weighed? If he is aware of these facts, his remarks are insulting and abusive; and if he is not, he has no indisputable facts to predicate his review upon. In short, it seems to me that *Carbureted Hydrogen* would have been a more proper signature to his article, as it would at least have expressed the motive that induced him to pen his article—that of interest in the present mode of gas lighting.

Yours,
HENRY M. PAINE.
Worcester, Nov. 14, 1849.

An Effort to Increase the Usefulness of the Mechanics' Institute.

At the last business meeting of this Institute, a resolution with this object in view was adopted, and a Committee of ten appointed, with power to increase their number, to take into consideration the best means to erect a suitable building, in a proper location, and thereby extend its privileges to the operative mechanics of our City, to whom we owe so much, and for whose especial benefit the Institution was originally organized. We really hope that this effort will be sustained, not only by men of wealth who have realized fortunes from the genius and industry of our mechanics, but by the mechanics themselves who, in the present flourishing state of mechanic arts in our City, are fully able to sustain their own institution and make it an ornament to our City and country, and a model for the manufacturing cities of the world.

New Ship Ventilator.

Mr. Emerson has been exhibiting in Boston an improvement in ship ventilators, by which persons between decks can at all times enjoy the luxury of pure air. These ventilators are of two kinds—one of them being an injector and the other an ejector of air. Each is fixed upon a tube, about thirty-six inches in circumference, which rises about four feet above the deck, and this tube is contrived so as to prevent rain or the ocean spray from entering the vessel.

Lecture on Patent Laws.

We are much obliged to Geo. Gifford, Esq., for a copy of his Address on the Patent Laws. We will notice its contents next week.