NEW YORK, MARCH 4, 1848.

Scientific Knowledge.

Scientific knowledge embraces the study of the whole universe. It counts the number of the rolling spheres, it measures their distances and predicts with unerring certainty the periods when those brilliant and untiring travellers will pass and repass the various celestial *milestones* which mark out the pathway in which they unceasingly journey. Lofty and sublime as is this flight of science, it is no less worthy of our admiration when it "lifts the water drop on the point of a needle" and spreads before our vision a world there too.—In the eye of God, science reveals to us, that every atom is a world, and every world an atom. Science is a correct and carefully arranged system of facts—facts relating to every operation of nature and every department of lite, yea, and every condition of life too.—The workman who possesses a carefully arranged system of his own experience, is a scientific man, so fa as it relates to all that he has carefully and correctly arranged, and that man is most scientific who possesses the most personal experience and accumulated information regarding the experience of others.—Science embraces every art and despises not to analyze the very dust upon which we tread and store up the results in her treasure house.

Science embraces the moral as well as the physical world, and what is of more value, she has dashed down the false philosophy, "that mind was depraved in its connexion, matter, and that happiness was to be enjoyed altogether apart and separate from the physical condition of man." This was the doctrine—the fatal doctrine for hundreds of years to the industrious classes. It was the doctrine which doomed them to find no sympathy for poverty or suffering in the bosom either of Church or State. But science now has revealed to us, that according as the many are comfortably clad, abundantly fed and the mind trained to find pleasure in true knowledge and useful information, so in proportion is virtue and happiness spread abroad among the people. Science teaches us also, that it is by industry these blessings can alone be gained and enjoyed, and in this manner she establishes the eternal truth of the mutual brotherhood of man and the relationship that exists between matter and mind, the star and the rain drop—the world and man—*the lord of creation.*

Electric Telegraphs and Patent Laws.

Professor Morse has prepared a pamphlet, which will be published in a short time, wherein will be fully set forth the injustice done him by Lord Campbell in refusing him a patent for England, by which he has been robbed of the fruits of his invention in that country. The refusal of Lord Campbell, then English Attorney General, to grant, in 1838, a patent to Professor Morse, was not because the invention was "not original," but because it had been published in England and was therefore, public property, and could not be patented. As a proof of such publication, the only evidence produced to the Attorney General, was the London Mechanics Magazine, No. 757, Feb. 10, 1838, in which was copied, without addition, the article from Silliman's Journal for January, 1838, page 185. The refusal to grant a patent because a description of the invention had been published in any periodical, is an act of legal barbarism. Such a law is against both reason and justice and can be defended upon no principle whatever but that of an absurd muddiness of intellectual regard for ancient law and nonsense Why, the very fact of a man publishing boldly his invention to the world's scan stating his exclusive right to the same, should entitle him to the more faithful protection in the property of his invention. It would be well for other nations to take an example from America in regard to the simplicity of her Patent Law Regulations.

HOUSE'S ELECTRIC TELEGRAPH.

By request we publish the following claim of R. E. House, Esq , for his Magnetic Letter Printing Telegraph :—

Claim.—"What I claim as my invention, and not previously known in the above described Magnetic Letter Telegraph, is—1. The manner in which I arrange and combine the finger keys, a key shaft, and a circuit wheel, respectively, for the purpose and substantially as herein described. 2. The combination of the escapement with the type wheel, by the means of pins in the side of said type wheel, corresponding in number with half the number of letters and other characters which the type wheel is constructed to form, and the above combination and arrangement of the escapement and type wheel in combination with magnets, as herein described, and for the purpose herein stated. 3. The combination of the type wheel with the lever, by means of pins fixed in the sides of said type wheel equal in number to the number of letters and other characters formed (and by other characters I mean as well blank spot as the letters and dot,) for the purpose of regulating the motion of the shaft, to carry the paper cylinder to and from the type wheel, all as described in said specification. 4. The manner of combining the shaft with the lever, by means of the pin, and projections on said wheel. 5. The combination of the lever with the hydraulic regulator, to produce the effect herein pointed out, and in the manner herein described. 6. The manner of producing and regulating the several motions of the paper cylinder by the combined action of the several parts respectively, as herein described, viz. the hydraulic regulator, the wheel, the lever, the type wheel the eccentric shaft, and the rods connected therewith, the ratchets or catchets, and the posts, as herein described. I also claim the manner of applying the plumbago to blacken the type, as herein described. 7 The combination of the composing apparatus with the magnet for the purposes specified."

Experiments on Iron Vessels.

One of the greatest objections to iron vessels has been the tendency of the material of which they are composed to accumulate, to an extraordinary extent, under water, a vast collection of weeds, barnacles, and all other submarine crustacea. During the last ten years various chemical preparations have been applied to obviate this well founded objection, but unfortunately, with signal failure, or such partial success that the advantages of the application of them have not been worth the trouble of the experiment, until it at length appeared to be a settled understanding that the common red lead next to the naked iron itself was the most judicious application. It could not, however, be supposed that in a country like this, so eminent for theoretical as well as practical science in chemistry, as in other arts and sciences, that all attempts to remedy the serious defects complained of, should be abandoned in blank despair; and accordingly, not a few interested in the preservation and success of iron vessels have devoted their hours of leisure to the task of discovery and experiment.

Patents innumerable have been applied for and granted in England, and compositions have been introduced under the most promising auspices but with very unsatisfactory results. The great increase of iron vessels in the British Navy has increased the necessity of some covering for the iron to prevent the evils to which they are subject, and liberal offers made by iron ship builders, and encouragement by the Admiralty and their commanders in chief, is the reason why anything approaching to a perfect chemical compound has been discovered.

In September last, 1847, metallic compositions by different chemists were applied to the Fairy steam yacht, at Portsmouth, when the success of one of them, prepared by Mr. Hay, was considered by a committee appointed to examine, to be such as to justify a more extensive and direct trial of its qualities. Accordingly, to the same vessel it was again applied, but a strong practical opinion having been expressed by many experienced men who had a great deal to do with iron boats, in favor of red lead, it was determined as a fair test of the respective merits of the two compounds, to apply to the Undine steam vessel, Mr. Hay's preparation on one side, and the common red lead on the other. Great interest was felt in the result of the experiment, than which none could be fairer, or better adapted to satisfy conflicting opinions, and to determine an important inquiry, and a period of six weeks was considered time enough to investigate the condition of the vessel. The Undine was prepared with the cempounds as above, and at the expiration of the time allotted was laid upon the graving slip in the dock yard, and, on examination by Admiral Sir Charles Ogle, the commander in chief, Mr. Fincham, the master shipwright, Mr. Owen, the supervisor ot metals, and Commander Crispin, so decided a contrast was presented between one side of the vessel and the other, that no doubt of the success of the preparation of Mr. Hay over that of the common red lead remained in the minds of any of them. On the port side, covered with Mr. Hay's preparation, the bow was entirely clean, and as beautifully smooth as new copper; whilst, under the bilge, and in some places under the stern of the vessel, there were a few patches of harbor mud, and dead sea weed, which the dash of a bucket of water, or the rise of a single wave would effectually clean off.—On the red lead side, however, particularly on the bow, there was a most luxuriant crop of living green sea-weed, rendered entirely crustaceous and difficult to be removed, from the receding of the water from it; in fact, it was impossible to take off without detaching the red lead from the vessel, thereby clearly proving that the red lead was congenial to its growth, if it did not afford an actual deposit for its nature and vegetation. Nothing could be more remarkable than the regular covering of the vessel's bow with this living weed, swarming with myriads of marine insects; and nothing could be more conclusive as to the demerits of the red lead, when compared with the composition applied to the other side, than the fact, that whilst the one side was entirely smooth and clean, the other was so foul as to be green instead of red, and was more or less extended along the whole side of the vessel, and to the rudder in particular. There was no doubt at all about the matter—all present, and those who came after to inspect the vessel, expressed themselves in terms of approbation of the successful issue of the experiment. But in order to test more fully the strength of the adhesion to the red lead, and the facility with which the other side could be cleared of the trifling deposit of mud in the seams, Sir Charles Ogle ordered the Undine off the slip at high water—and as she had not been under steam for a fortnight, he directed her commander to proceed to Spithead for a short cruise, determining to have her again high and dry in the morning and then to inspect her condition. The Undine returned after 1 1-4 hour's cruise, when the port side of the vessel under water, covered with Mr. Hay's composition, was examined and found perfectly clean and smooth; and the other side was also free from the harbor mud and marine insects, which formerly adhered to the weed, but the weed itself was too strongly rooted in the red lead to be detached by the great speed of the vessel. After a minute examination the examiners confirmed the opinion they had previously expressed respecting the perfect success of Mr. Hay's invention.

Gutta Percha.

This substance, which we described in a number of articles in our last volume, is now extensively manufactured and sold in this city. It is manufactured now also very extensively by Mr. Armstrong, at his Gutta Percha Works in Brooklyn, and we believe he can scarcely supply the demand for it. It is made into all the different stuffs which we have already described in the articles alluded to, viz. soles for shoes, machine bands, waterproof cloth, covers for books, a splendid article, and into an innumerable number of other articles It may be rolled out thinner than gold beater's skin to any size. The various articles of dress, capes, leggings, umbrellas, and other defences against rain, hat cases, drinking cups, backs for hair and clothes brushes, buckets for fire engines, are a few of its various applications. In the ornamental arts, its use in book binding is becoming common. Mouldings of all possible intricacy, from ceiling mouldings down to the copy of a coin can be constructed as truthfully of the gutta percha as though the copy were made in plaster of Paris.

Iron from England.

There seems to be just ground for fears of disaster to our iron interest. The Pittsburgh Gazette, learns, on high authority, that commission-houses in Buffalo have received, via New York, iron with orders to sell at almost any price. Every ton of iron that goes to Buffalo, via New York, says the Gazette, is so much taken from the amount that Pennsylvania should sell.

The Kittaning (Pa.) Free Press, says that offers have been made by English agents to deliver in the city of Pittsburg, during the present year, not less than ten thousand tons of Scotch pigs, at less than $25. This iron is sought after in England as ballast for shipping.

Manufacturing Operations in Maine.

The Hallowell Cotton Manufacturing Company are prosecuting business to the extent of the capacity of the Mill, notwithstanding the existing depression and the suspension of Cotton Factories in other places. We are informed that the goods manufactured there, which are fine sheetings and printing cloths, are not so much depressed as the coarser fabrics.

An establishment for the manufacture of Glue has been commenced in Hallowell, and is just getting under way, preparatory to doing an extensive business the coming season, and manufacturing operations in general seem to be progressing with vigor in that place.

Patent Case.

On the 21st ult., in the U. S. Circuit Court at Philadelphia, the case of Alton vs. Ward was disposed of. The defendant had been arrested upon a charge of infringing a patent granted to plaintiff for a Coat Measure. The motion was to discharge on common bail. The court after inspecting the affidavit, dismissed the defendant, and denied the motion to order him to pay costs.

Mechanics in Kentucky.

The Kentucky Legislature has refused to admit a colored mechanic to move into that State from Virginia. The reasons assigned were various—but among them, and as chief were these, that they wanted more white mechanics, and they should never have them until labor was made reputable.

Niagara Suspension Bridge.

The process of hanging a cable across the gorge where the "international Bridge" is to be suspended, was as we learn from the Lockport Courier, accomplished in the following manner:—"A twine was first sent across the chasm attached to a kite. This done the process of drawing over cords of increased size and strength, was an easy and very simple task."

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