NEW YORK, OCTOBER 14, 1848.

The Telegraphic System.

The subject of Telegraphs at the present moment, is engaging deeply the hearts and minds of our people. From the east and the west letters have poured in upon us respecting the legitimate and true claims of telegraphic inventors. The late decision of Judge Monroe of Kentucky, granting an "*absolute injunction*," against a system of telegraphing used by H. O'Reilly, Esq. because it conflicted with the claims of Professor Morse, has been the subject of many bulky communications to a great number of our newspapers.—We have already expressed our opinions upon that decision, so far as it touched one point of the conflict, viz. the Electro Magnetic Telegraph. There is another point of that decision on which we have not yet expressed our opinion, viz. Electro Magnetism. From the decision of Judge Monroe, unjust as it is ridiculous—the exclusive monopoly of Electro Magnetism is held to be secured to Professor Morse, for telegraphic purposes. Now Professor Morse has no right or title or claim to any other mode but that of the *Electro Magnet*—a mechanical use of the magnet in combination with a galvanic current. This we are prepared to show, and will say no more at present upon the subject, but will commence next week and publish a series of articles on this subject, so as to set clearly before the minds of our readers—the distinctive features of the different telegraphs, and the claims of telegraphic inventors. We consider it is our duty to do this, as there are many conflicting opinions on the subject, and there is too much partisan feeling exhibited by the interested friends of opposing parties to judge calmly of the matter.

As the Scientific American is happily always clear of party interest in conflicting claims, we are thereby, not from superior attainments but circumstantial and business duty, enabled, perhaps, to give the subject a more calm examination than any other paper.

The Mechanic Arts.

The true value of the mechanic arts, is becoming more extensively known, and the rights of the toilers more firmly and honestly advocated. We are glad to see this—it is evidence of a more divine spirit infused into our popular literature, than when priest and poet held the working classes to be nothing but appendages of the rich man's estate or the titled noble's pompous train. The article which follows this is selected from the New York Sun of last week, and we justly deem it to be a clear and energetic exposition of the value of the Industrial Arts—and the benefit of those arts to every country that encourages them. We publish it for its real worth and with the hope that more attention and encouragement would be given to our inventors and mechanics, for it is a stubborn fact, that while huge tomes are printed for the benefit of our agricultural interests, and the information contained therein collected by our Patent Office, a few pages only are devoted to the mechanical interests of our country, and the most important information in reference to last year's inventions, has not yet been printed. The interests of our mechanical classes are sacrificed in a great measure to those of another class. Our inventors have justly complained of this, and we hope that this will call attention to the subject in the right quarter. We seek no more than even-handed justice.

Value of Manufactures to a Country.

"Whoever enchances the value of a material for use or trade, is as much a producer as he who produces the material itself. Though the soil is the basis of production, inasmuch as its mines, forests and farm-fields yield the raw material to labor, there are after-transmutations and transformations which in carrying the raw material to its final uses add to, double, and often give a thousand fold value to that material. The flax, hemp, cotton and wool of the farmer owe more than fifty per cent, of their glory to other hands, before they arrive at their highest uses and value.

Thus communities may flourish in wealth and production, without turning a furrow, delving in a mine or hewing down a tree in a forest. Manufacture is equally noble, useful and productive as its basis, agriculture; and no nation can be rich and powerful in commerce that does not foster it. Few consider how much manufacture adds to the wealth of nations, by enhancing the value of its raw materials. How much more the ship is worth complete from the hands of art than the timber, iron and hemp of which it is composed—or the broadcloth, than the wool and dye-woods used in its fabric—or the boots, than the leather in the tanner's vats.

A pound of cotton wool worth as raw material ten cents, has been made worth twenty five dollars by the process of spinning—woven into muslin and ornamented in a tambour, its value has been raised to seventy-five dollars. An ounce of Flanders thread has been sold for twenty dollars, while, made into lace, the same ounce has been sold for two hundred dollars. Steel may by manufacture, be made three hundred times dearer than standard gold, weight for weight. Lead manufactured into small printing type, is increased twenty eight times in value. Iron made into needles is increased in value seventy-five times; into the finest scissors, nearly five hundred times; as blades of pen knives, seven hundred times; as sword handles, polished steel, one thousand times.

Thus, manufacture is the best friend of that labor which brings forth the raw material, and the manufacturer from ten to a thousand times a greater producer than the cotton grower and the miner. The raw material is the basis, but manufacture is the crown of national wealth, and the chapter of political economy which man should most study, is that which relates to arts by which the value of his raw material is increased ad-infinitum. Those are the arts of manufacture"

New Telegraphic Line.

A new line of Telegraph is about to be put in operation between this city and Boston by Mr. O'Reilly.

We have been informed that Bain's electro chemical telegraph (a cut of which appeared in No. 35 vol. 3 of the Scientific American,) is to be used on this line, and, for the transmission of foreign news at least, it will distance all competition, as by it 1000 letters can be transmitted from Boston to this city in one minute. It will do all the business with one wire.

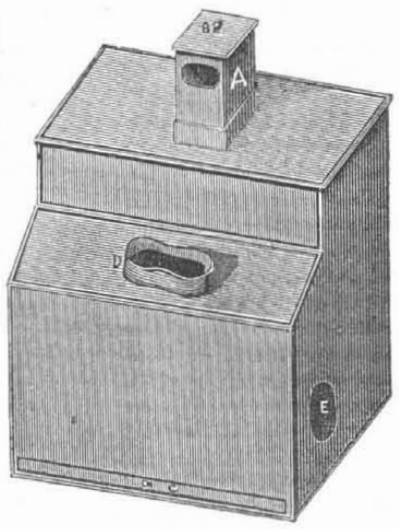
We last week visited the rooms of Mr. Bain in Broadway, this city, and we must confess that we believe him to be the first electric engineer in the world. Perpetual motion may be said to be achieved by his electric clock, for it will go for 100 years without winding up. His autograph telegraph is exceedingly ingenious as by it the fac simile of any person's handwriting may be sent from this city to any other in the Union, and this too without an operator touching the machine after it is once set in motion. This is a wonderful invention, and is as yet in its infancy.

We have no doubt but electric clocks will yet supersede all other kinds. They are very simple and require no attention whatever. A battery composed of a few inches of zinc and charcoal, will propel one for years, and one battery will keep fifty clocks in motion as easily as one. One clock in this city will keep fifty clocks in motion at all the different telegraph stations connected with the central one here.

Progress in Useful Art.

Mr. G. H. Backus, 44 Fulton-st. is now manufacturing Paper Mache goods, such as Japanned Tables, Chairs, &c. &c., heretofore exclusively imported from Europe or from China, and is determined to surpass the best foreign articles in his line, at once in beauty, durabillity and cheapness. His specimens of inlaid ornamental Japanned work are now ready for the public, but they can scarcely fail to win admiration and patronage; and if he were but knavish enough to pass off his fabrics as freshly imported from Paris, he might rapidly acquire a fortune.

The Camera Lucida.



This is the name given to a beautiful little instrument designed as an assistant in the art of drawing, by means of which any person, without previous practice or instruction is enabled to produce upon paper, with pen or pencil a correct drawing of any desired object, whether of landscape, portrait, building or machine. The principle of the Camera Lucida has long being known, being similar to the Camera Obscura; its present portable form however, so as to be applicable to landscape and other drawings, is a recent invention and evidently of great utility. By the simple arrangement of a mirror and lenses in this instrument, a most perfect representation in miniature of the object desired to be drawn, is thrown down upon the paper in front of the operator, and to trace with a pencil the outline and shading of this representation is the only labor to produce a correct and elegant drawing. The instrument is 14 inches long by 10 inches wide at its base, about 12 inches high, shaped as seen in the above cut. A is a slide in the top of the instrument, within which the mirror and lenses are placed. B is a small knob or handle by which the slide is raised or depressed in order to change the focus to suit different eyesights. C is a shallow drawer at the bottom wherein the paper is placed upon which the drawing is to be made. The reflection of the object enters the aperture in the slide, seen near A, and striking on a mirror inside, placed at an angle of 45 degrees, the rays are thus thrown downwards through the lenses within, and fall upon the white paper in the drawer below, forming upon it a most brilliant and correct representation of the object in front of the Camera. D is an aperture through which the operator looks down upon the image on the paper to guide the hand while tracing. On each side of the instrument is an arm hole or sleeve, E, through which the hands are introduced while drawing, sufficiently large to allow them an easy and free movement. Those who have used the Camera Lucida are at first surprised at the elegance and correctness which the instrument enables them to execute drawings. As a medium for useful amusement in families it is unequalled; the portraits of all its members can be taken by one of their own number, as well as pictures of the homestead and surrounding scenery. Of its great convenience and utility to almost every person, it is unnecessary to speak, as it *speaks for itself*. For the convenience of our subscribers and others, we have lately had a large number of the most approved kind constructed, and have them now ready for sale at the very low sum of $6 each. We can send them in boxes with perfect safety to any part of the United States and those who wish them have only to enclose to us by mail the amount above named and they shall be promptly supplied.

The Weather Strip.

This is a very useful and simple invention, and no door that opens to the street especially, should be without it. It costs but little, while it saves much, both by keeping out rain in wet weather and cold in the winter season.—The Agent for it in this State, is Mr. Thomas Judd, of Geneva, an upright dealer, who visited us last week and exhibited the *Weather Strip*. He is now in Pennsylvania selling rights and will be found for a few weeks in Philadelphia.

The Cholera.

This disease will perhaps reach us next year, if not, so much the better, but it is always prudent to prepare for the worst. The cholera appears to be carried by a poison infused in the atmosphere, which acts with peculiar intensity on the mucous membrane of the alimentary canal. The irritation set up in the membrane, in most cases, is not violent at first, but if it be allowed to continue many hours unchecked, it produces such a change in the membrane, that the thin and colorless portion of the blood is poured out from it with the same rapidity as if a large opening were made in the great vein of the arm. Our care must therefore be directed against the presence of an atmosphere which is rendered impure by neglected drainage and the want of proper ventillation and means of promoting salubrity. Documents published by the British Government show that choleraic poison has been freely propagated in all those districts where drainage was neglected, and filth allowed to accumulate, and also show as clearly that places kept free from damp and impurity, and where personal cleanliness and the general health were attended to, were scarcely ever visited with the malady. The Dutch, the cleanest people in the world, escaped.

Florida Reef and Everglades.

At last the Senate of the United States has been aroused from its lethargy on the subject of the wrecks on the Florida Reefs and Keys, by the mass of evidence submitted to that body by the Hon. Mr. Westcott. His Report shows that the average of a million of dollars value is annually wrecked on the Florida Reef and Keys, for the want of an accurate chart of that coast. Not less than fifty three vessels were wrecked in 1846, valued, with their cargoes, at sixteen hundred and twenty four thousand dollars. To prevent a renewal of such disasters, he proposes that our merchants memorialize Congress, that the coast surveyors be instructed to explore that part of Florida without further delay. He also remarks, that although Florida has been held by the United States for twenty seven years yet no original American Chart has ever been made of its dangerous coast; that navigators have to depend upon old Spanish charts, and those made by the British from 1763 to 1784, and imitations of them by Blunt and others. It is also proposed to drain the Everglades, a work which we hope will be executed. Central Florida is perhaps the finest country in the world, not even excepting the valley of Damascus.

Borrowing.

Will our worthy exchange, the *Albion*, St. John, N. B. examine page 176 of the Glasgow Practical Mechanic for 1847, and stand somewhat corrected. The volume, we believe, is in the St. John's Mechanic's Library. It is not original even with the excellent Magazine to which we refer, as the process was in our possession before the date of its publication.

Planing Machines.

In the course of one or two weeks we will again commence the publication of the specifications of Planing Machine Patents—Bentham's of 1793, Emmon's, Muir's, &c. in succession.

Disease from Intemperance.

Dr. Darwin speaking of disease in London says it is remarked that all the diseases arising from drinking spirituous or fomented liquors are liable to become hereditary, even to the third generation; and gradually to increase, if the cause be continued, till the family becomes extinct.

THE
SCIENTIFIC AMERICAN.

Persons wishing to subscribe for this paper have only to enclose the amount in a letter directed (post paid) to

MUNN & COMPANY,

Publishers of the Scientific American, New York City.

TERMS.—$2 a year; ONE DOLLAR IN ADVANCE—the remainder in 6 months

Postmasters are respectfully requested to receive subscriptions for this Paper, to whom a discount of 25 per cent will be allowed.

Any person sending us 4 subscribers for 6 months, shall receive a copy of the paper for the same length of time.