



NEW YORK, SEPTEMBER 9, 1848.

**To Our Subscribers.**

The next number will complete the third volume of the Scientific American. We therefore take the present opportunity of calling the attention of our subscribers to the forwarding of their subscriptions for the next volume. We are indebted to you generally for the interest manifested in the success of a paper devoted to science and the arts, and for the exertions many of you have made to extend its circulation, by not only subscribing yourselves but inducing your neighbors to do so likewise. We repose confidence in the intelligence of our readers and their devotion to useful information for extending the circulation of our paper still further among the twenty millions of inhabitants of these United States. Our next volume will be a real Encyclopedia of useful and instructive information—a paper unequalled for richness of illustration, practical knowledge and useful information. Volume 4, will contain a history of the Rotary Steam Engine, illustrated with more than fifty fine engravings. We will also publish a number of Essays, by an eminent chemist. Our usual varied stores of new inventions will still claim our special attention, and yours too respected friends, for it is to the Scientific American that the manufacturers now look for what is new in the inventive world, and the inventors of the United States and many in Europe look exclusively to our columns as the best means of spreading abroad a knowledge of their inventions.— This is the reason why we have been enabled last year to publish the engravings and descriptions of more varied and useful machines than can be found in all the mechanical works ever published in our country put together.— The simple engravings and descriptions of useful machines contained in this present volume are worth themselves the full price of the year's subscription. Every person is aware of this fact, who knows any thing at all about the difficulty and great expense of getting such kind of information.

We have been highly gratified with the many flattering letters and testimonials sent to us respecting the continued improvements we have made in the Scientific American.— Every person can easily perceive this who will compare our present, with the past volume. We promised this at the commencement, and our friends have generally borne testimony to the faithful fulfilment of our engagements. Respected subscribers, much of this is due to you. You have extended our circulation and enabled us to publish a paper unequalled in real usefulness. Those who take the Scientific American do not find it, after reading its contents, "like a tale that is told." It is a standard work of American and other useful inventions and discoveries, and a bound volume is both stock and interest of the subscription money. Not a copy of our first volume can now be purchased, and to our subscribers we would say, send in your subscriptions now and endeavor to get your neighbors to subscribe also, for we do assure you that the next volume of the Scientific American will be the best book of new and useful inventions, mechanism, chemistry, and all useful information for the man of science, the manufacturer, the mechanic and every other person, ever published in the world.

**The Commissioner of Patents.**

The Committee of the House of Representatives to whom were referred the charges against the Hon. Edmund Burke, preferred by Dr. Clinton, made a very excellent and full report, which is too long for our columns, but to show our inventors the confidence that may be placed in the Patent Office, we publish the following extracts of the report, which speak well for the honor of those who superintend the Patent Office business:—

"In regard to the general averment, that

the whole of the twenty-one charges are tantamount to charges of fraud, bribery, corruption, embezzlement, felony and malfeasance in office, after a laborious investigation, the committee have no hesitation in saying that there is an entire failure of evidence to sustain the allegation.

"There is not even ground for suspicion of want of integrity in any particular. The committee cannot close this report without bearing testimony to the fidelity with which the duties of the office have been performed by the Commissioner, the Examiners and Clerks. Many of the causes of complaint arising from the accumulation of business, it is believed, will soon be removed by the examining corps, under the recent act of Congress increasing it.

"The committee also report the testimony, and offer the following resolution:

"Resolved, That the committee be discharged from the further consideration of the subject."

**The Empire State.**

The State of New York has now a population of two and a half millions, and it is the great highway of the internal travel of the United States and Canada. By means of its rivers, canals and railroads it is linked to the great lakes, the heart of the mighty West and the North, and is the channel through which the vast productions of those regions must pour an ever increasing tide. There are over 700 miles of canal, and about the same amount of railroads and telegraphs in the State.

Its imports amount to over sixty millions of dollars per annum, or more than half the imports of the United States, and the value of its manufactures is not less than thirty millions. Its shipping is nearly a half a million tons, and more than three hundred steamers traverse its waters. It has upwards of ten thousand school districts, with well appointed schools; one University, five Colleges, upwards of seventy Academies, and one Military Academy.

The City of New York is the centre of Art and Commerce. To it comes the mechanic with his new machine, the merchant with his new cloth, and the farmer with his new crops. Here can be found congregated the citizens of all nations. The Chinaman and the Malay may be daily seen in our streets. The Turk and the Greek walk through our marts and the languages of Europe, Asia, Africa, and America, are spoken in our midst.

Whatever is new is sure to be soon heralded forth among us, and frequently we are acquainted with new discoveries made thousands of miles distant, even before the said discoveries are known to the denizens of the regions where they were made.

**How shall I bring out my invention?**

This is the enquiry of almost every inventor as soon as an invention is completed, and in answer we would say that the best course to bring out an invention, is to publish an engraving and description of it in the Scientific American as soon as possible. This paper has the most extensive circulation of any Mechanical paper in the world, and the owner of an invention by thus showing his discovery to so many mechanical readers is sure to derive immense benefit therefrom. It secures to him the credit and profit of the invention, enables him to dispose of machines, rights, &c. together with many other advantages.— We repeat, that the first step in bringing out an invention should be to publish an engraving and description of it in the Scientific American. Nearly all of the best inventions which are patented at Washington are now illustrated in this paper, and those who have never had their machines published should neglect it no longer.

**Water as a Lubricator instead of Oil.**

We believe that it is not generally known, although noticed by us some time ago, that a patent has been granted for a new method of using water in place of oil, for axles, shafts, &c. The inventor is Mr. P. S. Devlan, an ingenious machinist of Reading, Penn., and his invention has been faithfully and successfully tested, and has been used for some time with great satisfaction in the fur cutting factory of J. W. Cochrane & Sons, Brooklyn, N. Y. When used on a railroad car, the water is applied by means of a box screwed to the

truck of the car, containing the water and a small wheel armed with buckets, which is pressed against the axle by spiral springs.— The revolutions of the axle turn this wheel, which throws the water over the journal in a constant stream, thus affording a means of lubrication, at once easy and uninterrupted.— When oil, which is a non conductor of electricity, is used on journals, the fluid passes from their surface to the centre, producing, in a short time, an entire change in the iron, which becomes very brittle and easily broken. This is the opinion of the Scientific Pambour. Water, on the other hand is a good conductor, and when used in the place of oil, it carries off the electricity from the surface of the journals, and thus preserves the iron from any injurious changes. This is one of its advantages, while economy is another and a great one. Iron boxes are used in place of the old brass kind, and answer as well, while they cost but one fifth of the expense and the saving in oil is no small item.

When this invention is applied to shafing, the harger is cast hollow and placed beneath the journal as a reservoir for the water. In that is the small wheel that is pressed up against the journal. As the shaft revolves the wheel turns with it and lifts the water from the reservoir, keeping the journal perfectly cool all the time. This invention is highly praised by those who have used it, but it has been introduced to but a few places yet. Mr. S. C. Hills, whose advertisement is on another page, is agent for it in this city.

**Steam Navigation of the Pacific.**

The line of mail steamers between New York and New Orleans, by way of Havana, with its branch to Chagres, will soon be in operation. The arrangement is to connect with the mail line on the Pacific from the Panama to the Columbia river. This service is to be performed by a steamer touching at San Blas and Mazatlan in Mexico, and at some of the principal ports in California, until it arrives at San Francisco. Thence another steamer takes the mails and passengers to the Columbia. The whole distance from New York to Oregon, between five and six thousand miles, will be performed in little more than thirty days. Some of the Government steamers are now fitting out for the Pacific, to extend the mail communication to the Sandwich Islands, and it is contemplated ultimately to comprehend China in the system. It is supposed that the Sandwich Islands may be reached in forty days from New York. The service will be arranged with reference also to a connection with Wheelwright's line of British steamers on the Pacific coast of South America.

The Government pays \$490,000 a year, for a monthly mail, by this route between New York and the Columbia river, and a semi-monthly mail between New York and New Orleans by way of Charleston, Savannah, and Havana. The contract is for ten years. The steamers are all constructed under government inspection, with a view to their employment, when required, as vessels of war.

One of the Pacific steamers is in such a state of forwardness, that she will be despatched to her destination in October next, and two more will follow her successively at intervals of one month each. The whole line between New York and Oregon is expected to be in operation next January.

**Twelve horse Engine and Boiler.**

Any one wanting a splendid engine and boiler of the above power for a sum far below their cost will do well to read the advertisement offering them for sale, which appears in another column. We will warrant both engine and boiler to be of the very best kind in every particular, and we can only add that the purchaser will be a fortunate individual. All the pipes are included.

**Patents Granted.**

Our readers will perceive that the Patent Office has made the work fly this week. No less than 17 Patents were granted. Three patents were granted to inventors in this city, and four to inventors in Philadelphia, allowing Kensington to be part of it. We perceive that our friend, Mr. Clarke, of Eufala, Ala., has secured the patent for his Eureka Cotton Gin

**British Cotton Factories.**

In the city of Glasgow there are 42 cotton factories containing 18,000 looms, and employing on an average 12,000 females and 1500 males. A year ago twelve of these factories were idle and nearly all the rest on half time. Now only five are idle and all the rest are on full legal time, 10 hours per day. The wages have been reduced 10 per cent for decrease in the hours of labor, but the operatives prefer this, and it is calculated that the wages will gradually rise to the old standard, by an understanding among manufacturers to raise a little on the price of goods. This is the latest news, so that it seems while our factories here are stopping, trade is getting better across the big herring pond. All the spinning factories are working full time.

**Cotton Factories of Pennsylvania.**

The cotton factories in Pittsburg and Allegheny City, that were recently stopped by a strike of the operatives, in refusing to work more than 10 hours per day according to a recent law, have all again we believe, commenced operations on the ten hour system.— The wages of the operatives, however, have been reduced generally 16 per cent. We would recommend a Convention of our manufacturers from all the States to be held and unite upon a universal 10 hour system. At present neither Pennsylvania nor New Hampshire can cope with other States that work 14 hours. This is not fair play. Manufacturers can remedy this, and 10 hours is just as profitable to one as the other, if fair prices can be secured, and surely this is not impossible.

**The Franklin Institute Philadelphia.**

The Exhibition of the Franklin Institute for the promotion of the Mechanic Arts, will open to the public on the 17th of October, and continue till the 19th. The room will be prepared for the reception of goods on the 13th of the same month. Mechanics and others are requested to send their productions early in order that the arrangement may be perfectly in time for full display of the progress of the Mechanic Arts of the country.

**Disease and Electricity.**

A letter from Petersburg July 13 mentions an interesting fact, in connection with the appearance of the cholera in that city. When the cholera broke out there, the air was so peculiarly changed, that no electrical machine would produce a spark, and a magnet which before then had sustained a weight of 12 lbs. would scarcely raise 4 lbs.

It is perhaps useless to say, that some other circumstance besides the presence of cholera, was the cause which affected the magnet.

**Unprecedented Demand for Old Papers.**

At the commencement of the present volume of the Scientific American we had nearly one thousand complete sets of the preceding volume on hand. Since that time we have had 500 copies of those sets bound, and the balance have been ordered by mail and sent in sheets. We are now obliged to inform our patrons that we are unable any longer to furnish complete sets in sheets, and that we have but fifty more copies left, which are bound. The price of the remaining fifty copies which are left will be hereafter \$3 per copy (neatly bound,) or we can furnish a few more copies in sheets, minus Nos. 1, 10, 16, 17 and 46, at \$2 per set. All the numbers of the third volume can be had yet, at the subscription price.

**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