



NEW YORK, MARCH 3, 1849.

**Things New and Old.**

The field of discovery is a vast one. It is not confined to any age, or country, but it embraces all ages, and the whole universe. Inventors have existed in every era of the world's history, even from Tubal Cain to the person who has obtained the latest patent at Washington. The human mind, as an evidence of its divine origin, is ever on the rack to discover something new. It is nearly four thousand years since Noah built the first ship—that vessel which floated majestically upon the turbid waters of the Deluge, and yet the end of discovery in nautical science is not yet.—Every age has added improvements to this science, and to every other science and art also. It is true indeed that the works of the ancient masters of sculpture, painting and architecture, are not surpassed by any works of the present age, nor have any improvements been added to the grace and beauty of the ancient works of this kind, but for works of utility, such as the Croton Water Works of this city, the Menai Bridge in Wales, the Eddystone Lighthouse, and many other modern works, we more than excel the ancient masters of architecture. It cannot be denied, that “the progress of discovery” has been gradual; every age has added a stone to the pile and we need not wonder that similarly constituted minds, in different ages, have produced similar inventions. This would not be the case, if every man was particularly acquainted with all the labors of his predecessors. But this is an impossibility, hence we see, almost every week, some invention, not new to us, but new to the inventor. Owing to this fact we often give sketches of past discoveries and present the experience and reasoning of scientific men upon different subjects. Many new discoveries are made in science, but the fundamental principles of science change not,—those sciences we mean, that are founded on mathematics. This being true, and every few years bringing a new race upon the stage of time, we must present things new and old to our readers, for every new generation commences existence with a perfect ignorance of the past. The art of printing enables the student now to become acquainted with some kinds of knowledge in a few minutes, that cost a lifetime of labor and study to other people,—hence he that “would be wise and full of knowledge” must not be ignorant of things new and old.

**The Travelling Balloon.**

This aerial apparatus which has created such an excitement in our city lately, and was exhibited in the Tabernacle on Wednesday evening last week at twenty five cents a piece, was published in No. 4, vol. 1 Scientific American. Any of our readers who have that volume can turn to the number and see the engraving and description, corresponding in every part to the machine now before the public and which is to take passengers to California in three or four days for \$100 dollars each. We have not said any thing about it before owing to the fact of its being before our readers for some years. The question now, is to see a large one going at the rate of 100 miles per hour as its inventors state it can do. The aëriod is of the form of a cigar, or double cone, but it is called the *revoloidal* spindle by the inventors. They object to the name of balloon. The vessel to hold the gas is to be 800 feet long and 50 in diameter, and this is to be propelled by a four horse power engine at the rate of one hundred miles per hour to California, by driving two fan wheels of 20 feet diameter each and making 200 revolutions per minute, which will be each wheel passing through a space of 14,571 3-8 feet per minute. This aerial locomotive is to carry 100 passengers to California with all their baggage, to carry fuel and water for 48 hours, and to alight when necessary. It will be twice as long as the new mammoth steamer New

World and nearly four times as long as the Constellation, now in the course of construction at Westervelt & Mackay's ship yard, which is 202 feet long—the largest merchant ship in existence. It is indeed a daring project to drive such a monster vessel through the air by a four horse power steam engine at the rate of 100 miles per hour. Just think of it—to see a vessel 800 feet long flying thro' the firmament to California, or to England, driven by a four horse power steam engine at a speed one third as fast as one of Hutton's bullets projected by 2 oz. of powder from a one-pounder gun. We saw the model, (which floated about two pounds) exhibited in the Tabernacle and were highly delighted with the amusement, although something went wrong with the machinery. We wish the inventors, Messrs. Porter & Robjohn, all success. We intend to put down our name for the *second* trip, and in reference to the next exhibition, we must say with Cowper,

“When Gilpin he does ride again,  
May we be there to see.”

**Blanchard Gun Stock Turning Factory Case.**

This case is renewed in Philadelphia for still further litigation. The Court granted an injunction against the Defendants on the fifth of January, and on the 22d February this order was made by the Court under a motion for an attachment against one of the Defendants for contempt in disobeying the injunction.

It is ordered, the counsel for the parties consenting; that William W. Hubbell, Esq., one of the counsellors of this Court, do inspect the machine or machines in use by the Respondent and the manner of operating therewith in the formation, manufacture and completing of lasts; and that he make report to this Court, of the form, character and mode of operating of the said machines, and of the results therefrom produced; and it is further ordered that the affidavits submitted at this hearing be inspected by him, and that copies thereof be made for his use (if he shall require the same) by the clerk of this Court,—and that the model or specimen attached to the said affidavits or some of them, or referred to therein, be placed in his custody,—and that the Respondent shall on reasonable notice give free access to Mr. Hubbell to the machine or machines in use by him, the Respondent, and that he moreover illustrate in the presence of Mr. Hubbell the mode of operating with such machines for the production of lasts like to the specimen or model in this order before referred to; and that the costs of the proceedings under this order do abide the event of the pending motion.

[When these cases are concluded we will give some of the evidence and other matters.

**Pure Water in Albany.**

F. S. Claxton, Esq. the engineer employed by the Common Council of Albany with the surveys preliminary to the introduction of a better supply of water into the capital of the Empire State, has reported in favor of the plan that has always appeared most favorable to us, viz. taking it from the Mohawk river. Mr. Claxton reports upon three sources of supply, viz. the Mohawk River, Patroon's Creek, and the Hudson. To supply the city from the Creek will cost, according to the estimate, \$624,597; it is also supposed that this source will not yield enough for the city at the end of fifty years. The cost of raising and distributing the water of the Hudson is put down at 746,015; while the Mohawk water, taken at Cohoes, may be had for 703,899. These estimates suppose 1,000,000 gallons daily from the Hudson, 500,000 from the Creek, and 7,000,000 from the Mohawk.

An abundant supply of water by gravitation is the cheapest plan in the end, although it may be dearer at first. An instance of this kind has lately happened in Glasgow, Scotland, as a late exchange informs us, where a new supply of water is conveyed a distance of 10 miles from a small elevated lake. Now that place used to be supplied with water by steam engines where the fuel can be purchased for almost nothing, the kind used for the engines being only 50 cents per ton. We hope that the Albanians will conduct the Mohawk water for domestic purposes through good filtering reservoirs.

**Steel and Gold Pens.**

The earliest instruments used for writing were reeds, and they are still used in China and many other countries. It is not possible to tell when quills were first introduced—Some illuminated manuscripts of a very old date, represent the quill in the hand of the clerk. The Dutch were long famous for the manufacture of quills, the process of which was kept secret, but was carried to London by a Jew, and the quill business in England is still in the hands of that ancient people. The quill is now almost superseded by the steel pen, and the steel pen is in a great measure being superseded by the gold pen. The invention of the steel pen is not of an old date, but who the inventor was and the exact time when he invented it, is a piece of information which we have not, but would like to possess. All that we know about their origin is, that Mr. John Perry of London, was the first to give them elasticity by making slits in their sides. The manufacture of steel pens is now very extensive. The steel is rolled into very thin sheets about four inches broad and three feet long. They are placed successively under a stamping press and pieces of the proper form cut out with great rapidity. The nib is afterwards formed and likewise the slits in proper dies. The pens are then cleaned by being introduced—some thousands of them—into a tin cylinder, to which is communicated a violent motion by cranks, one to throw the pens up and down in one direction and the other to throw them up and down in the tin case in another direction—the tin case being hung like an eccentric. The pens are thus rubbed against one another and in three hours they are taken out bright and clean. They are afterwards tempered.

The Gold Pen is an American invention, said to have been invented by a clergyman, who communicated the idea to Mr. Browne of this city, who made the first gold pen in 1836. About two years ago, we were informed that a Mr. Smith in Saratoga Co. this State, had made a gold pen for his own use about twenty years ago, but we cannot speak positively on this point, although the information was received from a very creditable source.

In the manufacture of gold pens, the metal is first rolled out by machinery into thin strips the required thickness of the pen and then it is cut out by a die in pieces for the pens, of a form nearly like a pyramid erected on a square base. After this the work is all done by hand except rounding the channel by a die; and cutting the slit, which is a very scientific operation, performed in a way which few would suppose, and which is kept somewhat of a secret. The pens—the best—are pointed with Rhodium—not Iridium as has been commonly reported, and they are ground down in a peculiar manner to the writing point.—American gold pens are now manufactured and extensively used in London, and if we are indebted to England for the steel pen, we have returned the compliment. It is calculated that 1,200,000 gold pens were manufactured in this country in 1848, and more than 800 pounds of gold used in their manufacture, a high estimate no doubt, but very many gold cases and pens are now made. It is our opinion that an amalgam of gold and steel would make a super excellent pen. Very little gold would be required, as a small portion of that metal combined with iron, makes it anti-corrosive and no rhodium would be required for pointing.

The most extensive and famous manufacturers of gold pens in the world, is A. G. Bagley & Co., Broadway, this city. They have succeeded Mr. Brown, and Albert G. Bagley has been engaged in the manufacture from its very origin.

A few days ago we saw a gold pen made in the above manufactory for Gen. Taylor, (to write his inaugural address we suppose) which was a piece of the most tasteful and finished workmanship that ever came under our notice.

The navy appropriation bill which has passed the House of Representatives makes an appropriation of \$10,000 for the construction at the National Observatory of a Magnetic Clock under the superintendence of Dr. Locke, and to pay him for the free use, by the United States, of his invention of said clock and of all improvements he may make thereto.

**Steamboats.—Their Management.**

MR. EDITOR.—Having had some experience in nautical matters in my younger days, and having been a diligent observer of men and things since, I have often observed that the headway of our river steamers was very much retarded whenever it was desirable to change their course. The moving of the rudder either to the right or left, as the boat is passing through the water, produces a violent commotion in proportion as the angle formed by the keel and rudder is more or less acute.

It is also a well known fact that a vessel as long and flat as our river steamers, are not as obedient to their helm as shorter and sharper vessels. Many fearful collisions and disasters could be prevented if the course of the vessel could be changed with greater ease and rapidity. To avoid these objections a steamboat should be propelled by a double engine; that is, an engine with two pistons and cylinders, each piston driving a separate crank and wheel. The steam should be supplied from the main steam pipe by two branch pipes communicating with the two cylinders. In each branch pipe should be a valve, the valve rod passing through the upper deck to the stand occupied by the pilot, so that increasing or decreasing the speed of either wheel will produce a corresponding change in the course of the vessel and the use of the rudder be dispensed with; and by stopping or reversing one wheel the vessel may be brought about without loss of time and thus many dangers may be timely avoided.

Respectfully yours,  
GEORGE GUY.  
Westford, N. Y. Feb. 20, 1849.

**Electro Magnetism and Navigation.**

Senator Benton has presented a memorial of Dr. Page to the U. S. Senate, asking for the appointment of a committee to examine the merits of an invention for applying electro magnetism to the purposes of navigation and locomotion.

A committee of seven was appointed for the purpose. We hope that Dr. Page has got over the difficulties encountered by Davenport and Davidson, in their electro magnetic engines. If the power of electro magnetism can be concentrated by Dr. Page, like that of steam—it certainly is a more safe, clean and compact propelling agent than the other, and therefore will come into general use.

**American Whaling Ships.**

The Liverpool Times says:—“While the Americans have six or seven hundred ships engaged in whaling, the number of English vessels is reduced to seventeen. The Americans, by some mode or other, have quite superseded us in the adventurous and profitable business.”

If the British want to get whales they must double Cape Horn, and not roll about Greenland.

**The Prize Essay.**

We have received a quite a number of essays on the Patent Laws, and they will be properly examined in due time. A reform in our Patent Laws is imperative. Of this we are convinced from the many facts that have recently come to our knowledge.

**Back Volumes of the Scientific American.**

A few more copies of complete sets of vol. 3 of the Scientific American may be had at the office, either bound or in sheets. Price neatly bound \$2 75, in sheets suitable for mailing \$2. Send in your orders early if you desire them filled for we have but a few more copies left, and the number is growing less every day.

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.