

THE ADVOCATE OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME I.]

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[NUMBER 16.]

THE SCIENTIFIC AMERICAN,  
PUBLISHED EVERY THURSDAY MORNING, AT THE  
**SUN BUILDINGS,**  
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ALSO, AT NO. 12 STATE ST., BOSTON, AND NO. 21 ARCADE, PHILADELPHIA.  
(The Principal Office being at New York.)  
**BY R. PORTER & CO.**  
**RUFUS PORTER,—Editor.**

Each number of this paper is furnished with from two to five ORIGINAL ENGRAVINGS, many of them elegant, and illustrative of NEW INVENTIONS, SCIENTIFIC PRINCIPLES, and CURIOSITIES; and contains as much interesting intelligence as six ordinary daily papers, consisting of notices of the progress of Mechanical and other Scientific Improvements.—American and Foreign Inventions; Catalogues of American Patents;—Scientific Essays, illustrative of the principles of the Sciences of Mechanics, Chemistry, and Architecture;—Instruction in various Arts and Trades;—curious Philosophical Experiments;—Miscellaneous Intelligence, Poetry, and, occasionally, Music.

This paper is especially entitled to the patronage of Mechanics and Manufacturers, being the only paper in America devoted to the interests of those classes; but is particularly useful to Farmers, as it will not only apprise them of improvements in agricultural implements, but instruct them in various mechanical trades, and guard them against impositions. As a family newspaper, it will convey more useful intelligence to children and young people, than five times its cost in school instruction. Another important argument in favor of this paper, is, that it will be worth two dollars at the end of the year, when the volume is complete, and will probably command that price in cash, if we may judge from the circumstance that old volumes of the "New York Mechanic," by the same editor, will now command double the original cost.

TERMS.—"The Scientific American" will be furnished to subscribers at \$2, per annum,—one dollar in advance, and the balance in six months.

Five copies will be sent to one address six months, for four dollars in advance.

Any person procuring two or more subscribers, will be entitled to a commission of twenty-five cents each.

TERMS OF ADVERTISING.—For 10 lines, or less, 50 cents for the first, and 12 1/2 cents for every subsequent insertion.

From the Essex Banner.

**King Winter.**

Hurrah! for King Winter, his exile is o'er,  
And howling in triumph he returns to our shore,  
A garland of frost work he sports on his brow,  
And jewels of ice in his diadem glow.  
He has built up his throne of snow on the hills,  
And set his cold signet on fountains and rills,  
He's spread his white banners on mountain and plain,  
His old withered sceptre he's wielding again.  
He has reared a castle of clouds in the sky,  
And he pours forth his arrows of hail from on high;  
He fastens the hurricanes down to his car,  
And rides on and carries his conquest afar;  
His court he's convened in some dark northern cove,  
Where Zero's breath stings and the tempest sprites rave;  
Where Boreas attends his mandates to hear,  
And then howl them forth till Earth quivers with fear.  
He laugh's at Queen Summer's voluptuous reign,  
And vows she has wrought all her fancies in vain.  
He trembles her foliage under his feet,  
And clothes the forest in a garment of sleet.  
The rich man may smile at the king of the storm,  
While sitting secure in his own happy home.  
For what though his wrath waxes higher and higher,  
It blows not on him by his bright glowing fire;  
But alas! he bitterly howls at the poor;  
With withering curses he enters their door.  
He spares not infirmity, childhood or age,  
But pinches and stings them alike in his rage.  
Ye favored of fortune weighed down by your gold,  
Hear the cries of the poor, their anguish behold;  
And the surplus of wealth that flows o'er your cup,  
Let the sons and daughters of sorrow drink up.

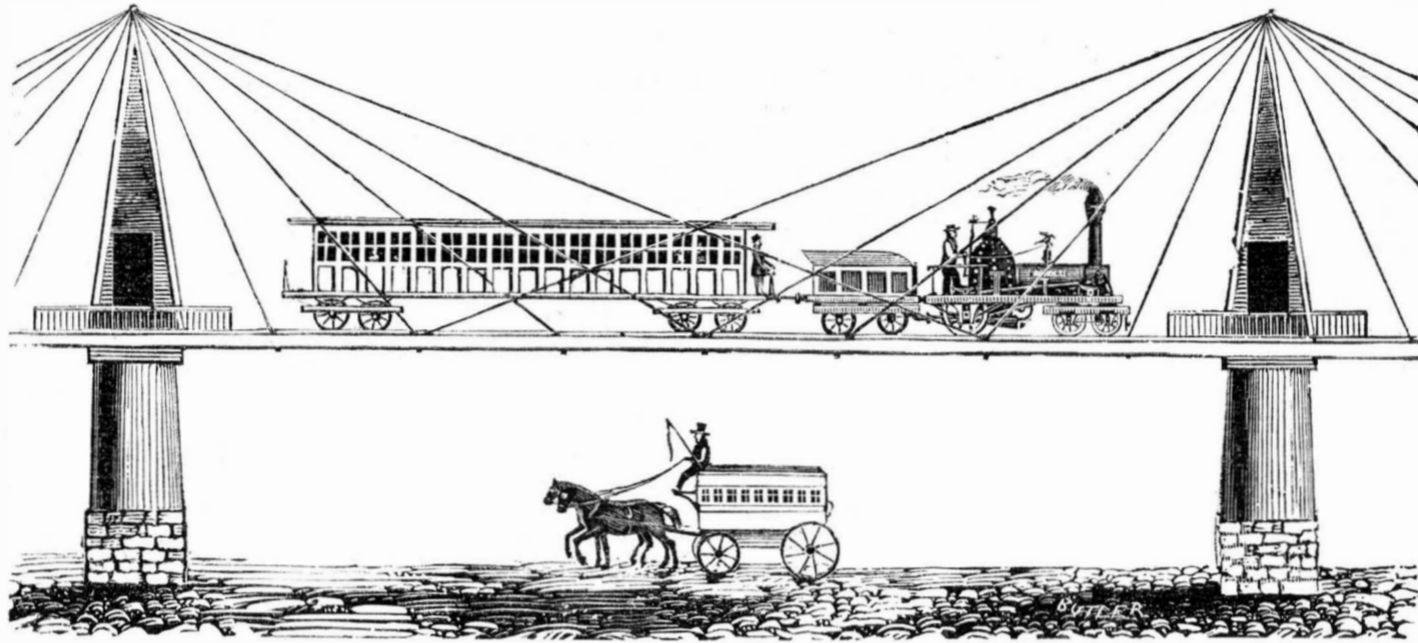
**Metrical Grammar.**

- Three little words we often see  
Are ARTICLES, a, an, and the.
- A NOUN's the name of any thing,  
As school, or garden, hoop, or ring.
- ADJECTIVES tell the kind of noun,  
As great, small, pretty, white, or brown.
- Instead of NOUNS, the PRONOUN stand  
John's head, his face, my arm, your hand.
- VERBS tell of something being done:  
To read, write, count, sing, jump, or run.
- How things are done, the ADVERBS tell:  
As slowly, quickly, ill, or well.
- CONJUNCTIONS joins the words together  
As men and children, wind or weather.
- PREPOSITION stands before  
A noun; as in or through a door.
- THE INTERJECTION shows surprise:  
As oh! how pretty, ah! how wise.

The whole are called nine PARTS OF SPEECH,  
Which Reading, Writing, Speaking teach.

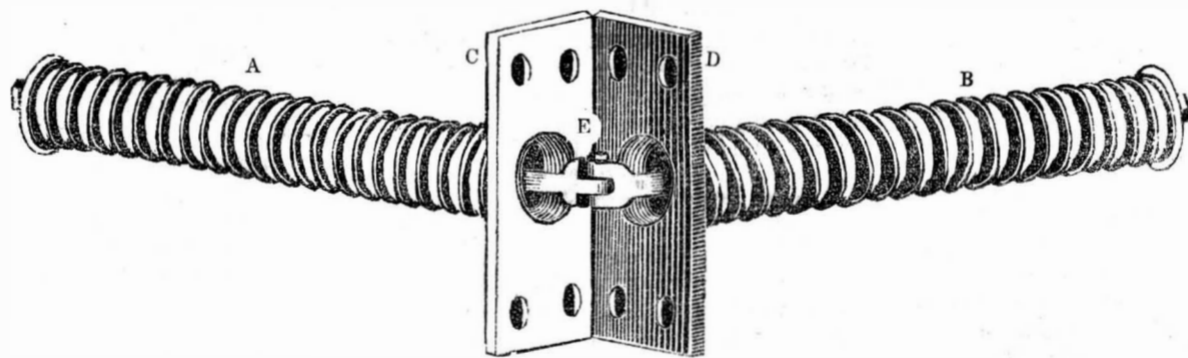
"Say, Jack, are you asleep?" Sam cried,  
"Why do you ask?" Jack quick replied.  
"Because if not," said Sam,  
"I want to borrow half a crown,  
To pay a friend I owe in town;  
"Well, then," says Jack, "I am."

**BROADWAY ELEVATED RAILROAD.**



EXPLANATION, &c.—We have heretofore alluded to the constructing of Elevated Railroads over the centres of some of the principal streets of this city; since which we have more attentively examined the subject, and are fully convinced of the practicability not only of constructing such roads, but of rendering them unobjectionable to the citizens resident on those streets, and those who have occasion to ride, promenade, or pursue the ordinary branches of business therein. This road must consist of a single track—which would be objectionable, as a train each way, every half hour, would furnish ample accommodation—elevated about eighteen feet from the ground, and supported by a series of stone columns, eight feet in diameter, and sixty feet apart. A frame work of substantial timber is elevated over each column, and about twenty feet high: and from the heads of these frames, several iron wire braces extend in each direction, to several points or sections, thus supporting the road between the columns, as shown in the engraving. This railroad may thus be made sufficiently permanent and safe, without discommodating the travel or business of the street, or obscuring the light of the houses or shops: for he it understood that this road has no flooring, but consists of open frame-work of timber, on which the rails are laid. The cars, and especially the engines, used on this road will be of light construction, the latter being operated by either a rotary, or other silent engine, that it may work without noise, and also without smoke. Convenient facilities for ascending to, or descending from the railroad, will be erected at every principal crossing. Platforms will be erected at such places, on each side of the road, and surrounded by a railing: and a narrow walk will extend from each platform, to the side of the street, where it may be connected with a flight of stairs, descending to the side-walk; or the columns may be built hollow, and contain a flight of spiral stairs, and one or more doors at the bottom thereof. We are confident that any objection brought up against this plan of erecting and constructing railroads over our principal streets, will be imaginary rather than real; and that by superseding, in a great measure, the noisy and dangerous omnibuses on those streets, these roads will render a residence on such streets, more pleasant and unobjectionable, and that consequently the value of property therein will be enhanced.

**ELLIS'S INVISIBLE DOOR SPRING.**



EXPLANATION.—The two spiral springs, A B, are attached to the two face plates, C D. These springs are coiled open, so that their tendency is to expand, or extend outward from the plates, but are restrained by two brass caps at the extremities of the springs. From each of these caps a rivet-jointed chain extends to the plate, and the two chains are connected together by a rivet, E, at the centre, between the two plates. When this apparatus is to be applied to a door, a hole is bored in the edge of the door, large enough to receive one of the spiral springs, which is inserted therein, and the corresponding plate is fastened to the door by four wood-screws; the plate being imbedded in the wood. Another hole is bored in the casing, opposite that in the door, and the other spring is inserted therein and secured by fastening the other plate to the casing. During this process, the two chains remain disconnected with each other: but are then drawn together and connected between the door and the casing, by the pivot E. The springs are then invisible, and all that is seen of the apparatus is the two plates, and the small section of chain which appears between them, when the door is open; but when the door is closed, every part of the machinery, even the plates are invisible. These springs have sufficient power to close any door, even against a current of air; but the chains may be readily disconnected when their aid is not wanted. There are various sizes of springs, of different powers; the prices varying from 75 cents, to one dollar and a quarter. They have already come into extensive use, and are highly spoken of by those who have tried them. Altogether considered this spring is a neat and excellent article, and must supersede other kinds in use. They may be obtained at Mr. Seymour's Hardware Store, No. 4 Chatham Square, as may be seen by his advertisement in another column. A specimen may also be seen at this office.

COPPER MINES IN UPPER CANADA.—Some of the British officers in Canada have lately made an important discovery of some of the richest copper mines in the world. This discovery has created great excitement. Some of the officers, en route to England, are now in this city, and will carry with them some specimens of the ore, and among them one piece weighing 2200 pounds. The ore is very rich, yielding, as we learn, 72 per cent. of pure copper. Some of the copper was taken from the bed of a river, and some broken off from a cliff, on the banks—the latter is six feet long, four broad, and six inches thick.

A DOLLAR A FOOT.—It is reported that when the Fresh Pond cars ran off the track, and off the bridge, into the "vasty deep," between Charlestown and Somerville, there happened to be in the cars, among the rest, a jolly Jack Tar; and though he sustained no material injury, the directors offered to pay him for the danger he ran of breaking his neck, if he would say how much it was worth.—"How far did I fall?" inquired Jack. "About twenty-five feet." "Wal, give us twenty-five dollars—a dollar a foot is as much as a man ought to expect—shiver my timbers if it aint."

MATRIMONIAL SQUABBLE.—Vy, said the lady, it aint no use belonging to you no how! Vere's the benefit I gets by it? I never has none of your earnings, nor nothin'. Vy now, expostulated her mate, vot is it you be arter? Vot does the 'oman vish? Vos'nt you drunk o' Wednesday, corned o' Thursday, drunk o' Friday, and corn'd again now? Vot would you 'ave? I suppose you vants to be hanged next.

A MENDICANT DOG.—"I was travelling," says M. Blanc, "in the diligence. At the place where we changed horses I saw a good-looking poodle dog, which came to the coach door, and sat up on its hind legs, with the air of one begging for something. 'Give him a sou,' said the postillion to me, 'and you will see what he will do with it.' I threw to him the coin; he picked it up, ran to the baker's and brought back a piece of bread, which he ate.—This dog had belonged to a poor blind man, lately dead; he had no master, and begged alms on his own account."

SAW MILLS IN ST LOUIS, MO.—There are thirteen saw mills in operation, propelling eighteen saws—one running three, three others running two each, and nine each running one saw. These mills according to circumstances, sometimes run day and night, and at other times during the day only. The New Era says a medium day's work for one saw is about two thousand feet of thin stuff—say inch lumber; and for day night about three thousand five hundred feet. At the former figures, the amount sawed per week by all the mills would be 216,000 feet, and according to the latter, 378,000 feet.

SENSIBLE FELLOW.—A gentleman residing in Penn Yan was walking one morning, when he saw his future wife engaged at the duties of the wash-tub. He stopped and looked at her for a moment, and then said, "Kate, will you marry me?" "Yes," was her prompt reply. Within a week they were married. Brief, pointed and business-like. Had he found her at the piano, ten chances to one he would have deferred "the question" to a more convenient season.

THE OREGON TRADE.—A PEEP INTO THE PACIFIC.—The last intelligence informs us that there are now two packets running between Oregon City and Honolulu, one of the Sandwich Islands. One of these is an American packet, and the other belongs to the Hudson's Bay Company. This fact is the initial of one of the greatest commercial revolutions which the world has seen. Look at the map. Fix your points at Liverpool, Boston, St. Louis, Oregon City and Canton. Then calculate the freight and time required by a bale of goods transported around Cape Horn to Canton. Then take the same bale of goods by steam car from Boston to Oregon City, and then by steam packet from Oregon to Canton. If the goods go from England, by Cape Horn, it will save ten thousand miles to take them across the American continent! If they go from the United States, there is a saving of two-thirds of the whole distance! That the trade of the United States will take that course, provided the communication is by steam, no one can doubt. It is vain to talk about the Panama route if you can go by steam to Oregon.—(Cincinnati Chron.)

THE FALL RIVER WORKS.—The Fall River Monitor says:—"The Fall River Iron Works Co., during the past summer, have built another mammoth factory, to run 22,000 spindles. N. & J. Durfee have also erected, during the past season, a large steam mill, to run 10,000 spindles—and the Pocasset Manufacturing Co. have finished an extensive addition to their Quechequan Mill, in which they have this season put 6000 additional spindles—which, together, will about double the number of spindles now running in the factories of this place."

**The Life of a Newspaper.**  
WRITTEN BY ITSELF.

My life is shortly told. My first impression was the sensation of a tremendous but short squeeze, which instantly awoke me into life and thought. I was now spread out to the light, and a glow of intelligence completely pervaded me. My ideas were at first new, multifarious and confused; nations, politics, courts, wars, speeches, merchandize, fighting, feasts, deaths, marriages, ditties, poetry, &c. &c., made up all my thoughts, which were various and mixed. I lay in a silent state of wonder and great amazement. I soon found that I was but one of a very large family, that was ushered into this curious world at the same time. Our whole family was laid in regular order in a pile; my situation—being one of the first born—was particularly uneasy, damp, and uncomfortable. I had a silent, intuitive longing wish to get into the world, which was at last gratified. Morning came, and I was carefully folded and laid, Moses-like, in a basket, by a boy, who was called the carrier, and borne into the street. The said carrier, I soon found, was an object of interest and desire. He was soon accosted by an elderly looking man, with thread-bare, old, and rusty breeches—"Have you a spare paper, this morning, my boy?" "No sir!" was the short reply, and he trudged on with us, muttering, "not as you know on, old gripes—you are the same chap that promised me some coppers for a paper, the other morning, and hain't paid me yet; you are too stingy to take the paper—you won't get another I guess." My brethren were fast leaving me, being deposited at their proper destination. At length my turn came, and I was tucked into the crevice of a shop-door. The first sample of the kind of usage to expect was not at all alluring. I had not been long in my new situation, when a reluctantly early comer, swinging a key in his hand, wistfully eyed me, and casting a look about him, feloniously seized me, and thrust me into his pocket. My rightful owner—by virtue of advance pay,—being in sight, hailed and arrested the pilferer, and with threats, compelled him to relinquish his prize. He entered his store, and I soon found that I was the great object of his attention. After hastily drying me by the fire, in which process I narrowly escaped conflagration, he ran his eyes upon sales at auction, advertisements, &c. I was then more particularly examined and dismissed with condemnation. "Nothing but foreign news—congress and cabinet—love stories, and accidents by flood and field. A newspaper should be a commercial report; one side at least should be devoted to prices current." I was then pettishly thrown upon the counter, but was soon in requisition. A boy came in with a "please to lend me your paper a few minutes, just to look at the ship news?" The request was reluctantly granted, with something about the plague of the paper borrowing, and a determination so stop it. The good old woman, whose husband was at sea, eagerly sought the ship news, but was disappointed in her search. "How negligent and careless these printers are," said she, "not a word of intelligence of the Wind Bird; they print of Portland, and poetry, and fill their papers with advertisements, and that is all they care about." Miss now took her turn. She sought the stories, the poetry, and marriages, which in half an hour were all devoured, with the "wonder that they put any thing else in the paper." An elderly lady now took me, who, adjusting her spectacles, surveyed me a little while, and declared me a "terrible uninteresting paper; hardly a column of deaths, and not more than fifteen or twenty murders and accidents." In this way I passed through all the hands of the family, and after being well soiled and somewhat torn by the little ones, was sent home. For three whole days I had no rest, but was continually borrowed and abused. At the end of this period I was supplanted by a new face, and was then discarded and thrown aside, like all servants when they have become useless. I was however again resuscitated, and employed as a wrapper to some merchandize and sent into the country. There, I again became the object of interest, went round the neighborhood, and was a "nine days' wonder." I am now quietly hanging up in a shattered condition, in a farmer's kitchen, from which I have written this brief memoir. I have seen much of the world, and learned that mankind are unreasonable and ungrateful, and that in a world of great variety of taste and wishes it is impossible to please all.

WESTERN MANUFACTURES.—The Nashville Orphanopolitan states that in Lawrence county, Tennessee, in five factories of which the names are given, capital to the amount of \$43,000 is invested; 86 hands are employed; 665 bales of cotton are consumed, and 455,000 dozen of thread are spun. Two other spinning factories are in process of erection. In the same county there are five iron works, each of which produces 100,000 pounds of iron. The gross amount of iron manufactured in this county is about 90,000 lbs., valued at \$36,000. The value of cotton yarns is estimated at \$40,000. These factories, says the paper from which we gather these facts, may appear small, but they are the foundation of better things to come.

A VERY SENSIBLE DOG.—We tell so many dog stories that we have some fear that we may "run the thing into the ground," as the saying is, but the fine Newfoundland dog of a gentleman who stopped at one of our hotels not long ago, was a sensible one, and we venture him in print. One morning his master offered him some brandy toddy. Lion was young and inexperienced, and confiding. It was the first temptation, and like many a silly young man, he yielded. The result was that he became much excited, and performed various undogly antics, peculiar to man and brute in that state. The next day the temptation was renewed. Lion put his paw languidly up to his head, as much as to say—"Excuse me, if you please—the brandy I drank yesterday gave me a head-ache."

Nashua Telegraph.

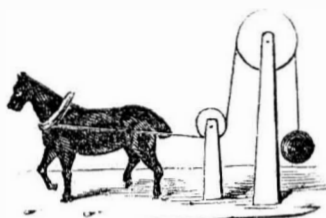
**AGENTS WANTED.**—Many travelling and local agents are wanted, to introduce and extend the circulation of this paper, in every principal village in the United States.

**THE SELF-ACTING HELM.**—An Electro Magnetic apparatus for steering vessels to any required point of the compass, without any attention from the mariners,—will be presented, with an engraving, in a few weeks.

**TO OUR RESPECTED COTEMPORARIES.**—We wish to have it distinctly understood, that we promptly send duplicates of this paper to all those who publish, or have published, our advertisement, as it appears at the head of our first column.

**HOTELS AND READING-ROOMS.**—Being desirous of having this paper more extensively seen or heard of we have decided to furnish it to hotel keepers and reading rooms for one dollar per annum, being half the regular price. If our generous cotemporaries will do us the favor to give a two line notice to this effect, we will acknowledge the favor with true gratitude.

**Science of Mechanics.**  
(Continued from No. 15.)



**POWER.**—Bolton and Watt, of England, made some experiments, or procured information from those who did, on the strength of the English cart-horses; and finding some which were able to raise 330 lbs. weight, a vertical distance of one hundred feet per minute, this has, for want of some better scale, become the standard of computing the power of steam, water mills, &c. In this country, however, horse-powers have been frequently estimated at 220 lbs., 100 feet per minute. Now we propose a more regular and convenient scale for computing power, and invite all the world to adopt and abide by it, in all cases of computing and describing quantities of power, henceforth. Let the unit of power be considered equal to raising one pound, a vertical distance of one hundred feet in one minute. Let this quantity of power be called a pound of power, which will, with regard to facility of reckoning, correspond with the pound weight. Then we shall have a fifty power, a hundred power, a thousand power, &c. Instead of estimating the power of a steam engine at ten horse-power, we should say or write 3300 pr. Instead of a quarter of a horse-power, we shall say eighty-three power, or write 83 pr. Every machinist will readily see the convenience of this method of computing power, and we hope to see it established by an Act of Congress. In future numbers of this paper, these terms will be uniformly used in designating quantities of power. Having established this point, we shall now proceed to the subject of Hydraulics, and describe the power that may be derived from water-falls and rapids, in streams of various sizes, and under various circumstances.

There is an opinion very prevalent, that a large water-wheel is much more powerful than a small one, with an equal quantity and fill of water, on account of a supposed advantage of leverage by the length of the arms of the wheel: and with this erroneous impression, some have constructed wheels whose diameters were twice as large as the distance of the fall of water; and the wheels being constructed with buckets, similar to those of an overshoot wheel, the water has been brought into the buckets at a point about as high as the axle. This theory, however, is very erroneous; for although by the leverage of the long arms, or radius of the wheel, the weight of the water applies more force to the axle or shaft of the wheel, yet as much time and as much water are required to produce one revolution of the wheel, as would produce two revolutions of a wheel of half its diameter. There is, moreover, in this case, a larger proportion of the power lost by a discharge of water from the buckets, prior to their reaching the bottom of the wheel.

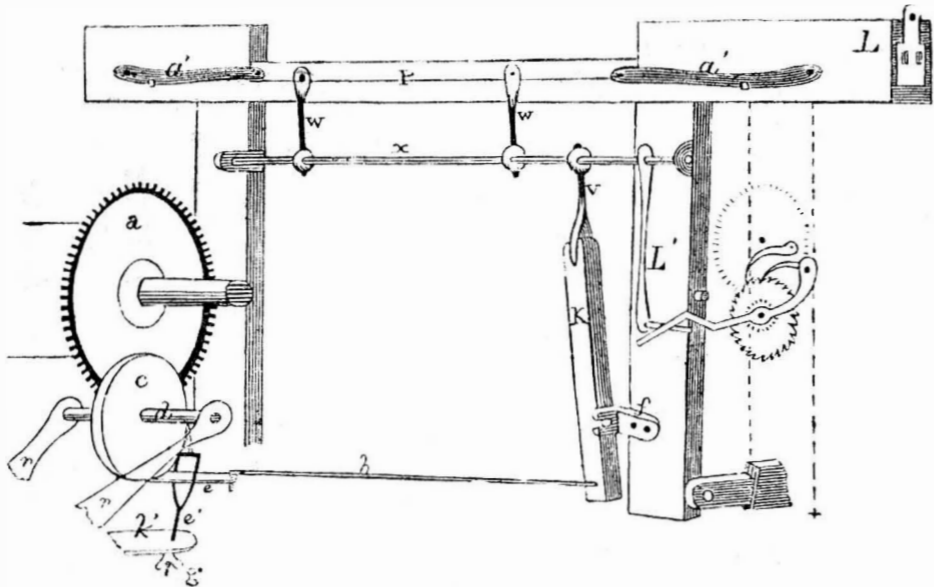
To be continued.

**OREGON RAILROAD.**—Mr. Whitney, in advocating this project of railroad, says, "The whole Asiatic trade with America will load its cars. Before the last mile of rail is laid, our enterprising Indianmen will be unloading freight for it, in the harbors of the Columbia." We like this style of anticipation, and hesitate not to say, that if the present Congress does not pass some act favorable to the enterprise, it will have planted the seeds of its own stigmatization to ripen earlier than that of the Legislature which refused to countenance the railroad projects of the scientific Oliver Evans.

**THE DISTANCE TO OREGON.**—The actual distance to be sailed from New York to the mouth of the Columbia River, by the way of Cape Horn, is estimated at 15,000 miles. The distance from New York to the mouth of the Columbia River, by land, is about 3,700 miles. Only 11,300 miles difference.

**THE COTTON LOOM.**—Nearly 20 years after Arkwright had begun to spin by machinery, the price of a particular sort of cotton yarn, much used in the manufacture of calico in England, was 38s. per lb. The same kind of yarn is now sold for between 3s. and 4s., or one-fifth of its price forty years ago. It is estimated that 400,000,000 yards of English cotton cloth are annually exported, and 400,000,000 used in home consumption.

**BRAYTON'S IMPROVEMENT IN LOOMS.**



We have received no full description of this improvement; but from the inventor's remarks on the mode of its operation, those who are accustomed to machines of this kind will probably be able to understand wherein the peculiarity consists. It is called the "Let Off and Take Up Motion on Power Looms."

**MODE OF OPERATION.**—The mode of operating the above motion is to place the motion on the loom, as the cut or figure represents, and then place the stud in the finger, L, on top of the hoppergrass, and have the ketch end of the hoppergrass the heaviest. Use no roller on the sword of the lathe. By low

ering the stud in the finger L, will produce less vibration on the reed, and by raising it will produce more. On the let-off or wheel C, have a stiff leather strap with a small iron rod leading from the same to the lever on the sword of the lathe. The thumb-screw G is to tighten the strap in order to make the web tight as it may be required. For making fine, even, and heavy goods both motions should be used at the same time.

WILLIAM H. BRAYTON.

N. B. All orders for the above motion addressed to MASON & CRAIG, Pawtucket, Mass., will be attended to without delay.

**The Art of Painting.**  
(Continued from No. 15.)

**CRYSTALLINE CHANGEABLE PAINTING.**—This may be said to be the most brilliant branch, in the entire art of painting, inasmuch as the pictures produced in this line, are more brilliant in appearance than any other. It is seldom seen on any other work, than nicely wrought French fancy boxes, waiters or tea-trays. It can be executed on no other ground than tin-plate, or tinned iron plate, which for nice work, should be smoothly planished; but a practitioner may work on the ordinary tin plate. The crystallizing process is effected by means of acids. Let the plate be perfectly clean, and placed in a horizontal position; then dip a very soft brush in muriatic acid, and wash over the face of the plate with it, and immediately immerse the plate in clear water. Wipe the plate dry, and repeat the process three or four times, and the plate will have acquired a beautiful changeable crystalline appearance. Another process which gives a finer and differently formed crystalline figure, is effected by a mixture of equal parts of sulphuric and muriatic acid, diluted with double the quantity of water. For this process, the plate should be annealed, by being held over a charcoal fire until the tin on the plate begins to melt; but it should become cold again before the acid is applied. A still greater diversity of crystalline figures may be produced, by applying a hot iron to the under side of the plate while in a horizontal position, and moving the hot iron slowly in various directions over the surface of the plate; thus by annealing some parts of the plate while other parts escape, the crystallization, whether produced by the muriatic or mixed acids, will appear differently in different parts. By a little experimental practice, a learner will be able to produce such an appearance of surface as may suit his taste. Having prepared the ground in this manner, and provided a full variety of transparent colors (heretofore described for painting on glass) and some fine pointed hair pencils, proceed to draw the outlines of the designed picture, on the crystallized ground, observing to lay out the design in such a manner as to accommodate the crystalline figures and shew them to the best advantage. On some parts of this work, opaque colors may be applied but in such a manner that the most important and conspicuous figures, shall present the changeable crystalline appearance, in bright colors and metallic brilliancy. Of course, the lights must be preserved, and the same rules in applying the colors observed as in transparent paintings. Human faces must be painted opaque, unless a sufficient space of the ground may be found of an uniform shade, to accommodate it, in which case the changeability of the countenance, as the position of the picture is varied, will have an interesting effect. Water views, edifices, rocks, flowers, and ladies' dresses, may be worked in the transparencies; and especially forests, if well managed, will have a beautiful effect by their changeability, and resemble the appearance of trees and foliage waving in the wind. Also, waves of the ocean, will appear in motion, as the position of the work, relative to the eye, is changed or varied. The bronzes, gold or silver, may be occasionally applied to this kind of painting; and the whole is to be finished and secured by a smooth coat of copal or seed-lac varnish.

To be continued.

**LONG DAYS IN THE UNITED STATES.**—It is anticipated by many that our Oregon or Pacific possessions will be extended as far north as the Bomanzoff Mountains, near the 70th parallel, in which latitude the sun does not set in summer. In June it is 25 degrees above the horizon at "midnight," and the only mode of knowing that it is midnight is watching the sun when it begins to ascend. Fowls go to roost at 7 P. M., and repose until the sun is well up. In winter it is of course the reverse, as in the high latitudes the sun is not seen for six weeks.

**UNOXIDIZABLE ALLOY.**—We find it stated in an exchange paper, that an alloy composed of one part of copper and one part of iron, with eight parts of zinc, being carefully melted together, is hard and tenacious as brass;—will not adhere to metallic moulds;—flows freely and leaves the mould smooth; and, what is best of all, it will never tarnish, even if kept in moist air. If these statements are facts, the discovery must be valuable.

**WORTH OF AN "EDITORIAL" COLUMN.**—The U. S. Journal, at Washington, says, "We have heard of a broker who stood ready to give an "organ" thirty thousand dollars per annum for the use of one half of an editorial column! Let this be granted and he would realize an independent fortune in eighteen months. In five years, with such a power at his command, he would be a second Stephen Girard in point of wealth. A few years ago a broker whom we will call H., for lack of a name, applied to N., an influential editor in the city of New York, to give him the privilege of half a column (editorial) of his paper, for which he offered him twenty thousand dollars a year; the offer was declined. Six months afterwards the broker showed the editor his operations, in stocks, through the columns of another paper which had yielded to his terms, and he (the broker) had made seventy thousand dollars in that short time, by speculating in stocks, with the aid of editorial paragraphs he himself had written.

**ENGINEERS IN ENGLAND.**—The reports in the English papers of the unprecedented demand for engineers in that country, are nearly incredible. It is stated that the most extravagant sums are paid for engineers,—\$50, \$60, \$75, per day are paid for even common and uncelebrated persons, while such men as Stephenson, Brunel, Locke, and others of eminence, are making their 100 to \$125,000 per annum, and it is a favor to get to speak to them for merely a moment or two. Surely the "railway mania" prevails to an alarming extent. But, be it remembered, that such excitements are almost invariably succeeded by the opposite extreme of depression.

**MANUFACTORIES IN MARYLAND.**—The Maryland Calico Print works, are said to be doing a large business in the manufacture of the "madder prints," of excellent quality. The establishment turns out 24,000 yards daily. We are glad to hear of their prosperity; for we have reasons, yet unexplained, for believing that every manufacturing establishment in the Southern or slave holding States, will either directly or indirectly promote the welfare of the entire American community.

**A GREAT INVENTION.**—A Cincinnati paper informs us that "they have got an invention in New York," of an improved railroad and cars; the truck being two feet wider than usual, and the cars furnished with kitchens and dining rooms, so that there may be no detention for refreshments, &c. It is a pity that so important appendages as sleeping rooms, were forgotten; but we think it lucky that the New Yorkers are in a fair way to hear of the invention, such as it is.

**WOODEN PAVEMENT.**—The Brooklyn Star says that wooden pavements are to be laid down around the Custom House, and recommends that the assistance of Mr. James Prince should be obtained to "ironize" the wood. We have no doubt that wood paving will yet come into extensive use, when the scientific branch of preparation becomes more familiar.

**DANGEROUS FEAT.**—A man at Pittsburg, a few days since, went over the new Monongahela Suspension Bridge, the timbers of which are placed six feet apart, without planking. Of course he had to leap from one timber to another, and in case of a misstep, he must have been precipitated near forty feet to the water below, and in spite of his feet, the feat would have been de-feat-ed.

**GREAT FIRE IN COLUMBUS, GA.**—On the 21st inst., at about 12 o'clock at night, a fire broke out on the upper part of Broad street, and spread then to Ogletree, Randolph, and Bryan streets. We have seen no statement of the number of houses destroyed, but the entire loss is estimated at \$150,000.

**THE WEATHER IN OHIO.**—They have had very cold weather in Cleveland, O., the thermometer 20th inst., marking six degrees below zero. Ice made very rapidly on the lake, extending out as far as the eye could reach, and the harbor was firmly closed to the mouth of the river.

**ENTERPRISE.**—The New Orleans Tropic set up the President's Message on board the steamboat, bringing it from Mobile, having had their cases and hands on board for that purpose.

**Preservation of Wood.**

Wooden pavements, which were at one time in high favor, on account of the comfort thereby contributed to the ears of men and the feet of horses, have been abandoned on account of their want of durability, notwithstanding the repeated publication and demonstration of the ready practicability of rendering the wood durable as stone, and that by a cheap and simple process. The unqualified abandonment of this excellent improvement, was one of the many consequences of the election to official stations, men whose only knowledge or skill consisted in political intrigue, devoted to the obtaining and retaining of office, but comparatively regardless of the convenience of the public. The recent introduction of wooden rails for railroads, has revived the subject of the preservation of wood, particularly for that purpose; and it is more than likely that wooden pavements will yet come into extensive use under more judicious management, than accompanied their first introduction. Various modes of the preparation of wooden blocks for durability, have been successfully practised, and wood thus prepared has stood the test of many years. For this purpose, nothing more is required than to saturate it thoroughly with a strong saline solution. Let a strong box or cylinder be made, large enough to contain two or three hundred middling sized blocks. Let a pipe communication be made between the interior of this vessel and that of a common steam-boiler. Let the boiler be filled, or nearly filled with water, fully saturated with ten parts of common salt, to one part of sulphate of copper or salt-petre. Then, having filled the first vessel with the blocks, and closed it, heat the water in the boiler, and throw a current of the steam thereof into the steam-box, containing the blocks, till the air is expelled therefrom; then shut off the current of steam, till that in the box shall have time to condense, thus producing a vacuum, when the air will escape from the pores of the blocks, by its own expansive force. Then fill the interstices within the box, with the hot solution, which will instantly fill the distended pores of the blocks, and effectually fortify them against decay during the next succeeding century. The residue of the water may be soon returned to the boiler, and kept in readiness to pickle another lot of blocks, as soon as they may be placed and secured within the steam-box. By a similar apparatus and process, pieces of timber of any length and size may be rendered permanently durable, at a very insignificant expense, and may, in consequence, be applied to various purposes for which it has been heretofore considered inapplicable.

**Isthmus of Panama.**

A correspondent of the Journal of Commerce states, on the authority of a letter from an Englishman, whose position makes him acquainted with the views of the Ministry, that the English Government has determined, with the consent of New Grenada, to undertake the construction of a ship canal across the Isthmus of Panama, and to convert the most important post an American Gibraltar. It is very possible that this report may be true, and that the Isthmus of Panama is the most favorable point for effecting a ship canal to unite the two oceans; but that the English Government will monopolize the trade between the Atlantic and Pacific shores is altogether out of the question. It must be perfectly clear to every one who is acquainted with the construction and management of canals, railroads, and vessels, that the plan proposed and illustrated in our last number, for transporting vessels over land, is decidedly preferable in all points, to the tedious process of canal transportation, especially where there is a considerable unavoidable elevation. The distance from shore to shore at one point, is represented to be only about thirty miles. But the country is mountainous, and would require many locks in passing the heights; and as a canal must evidently run circuitously, the entire length thereof would probably be fifty miles. There may, in all probability, be found better ground for a ship-railroad, by admitting an increase of distance. Even 200 feet elevation per mile, would be by no means insurmountable for a railroad; and when a ship-car is in motion, the additional distance of twenty or even fifty miles, will be of little consequence on the scale of time or convenience. Twelve miles per hour will be a moderate speed for a ship on a railroad, and the time occupied in receiving or discharging it, will not exceed 25 minutes; whereas the average progress on a canal, including the time occupied in passing the locks, could not exceed two miles per hour. On the scale of the first cost, the railroad would have a decided advantage; and were this subject properly laid before our capitalists, there would be found little difficulty in forming a company that would take measures to procure the requisite surveys of the country, and eventually, and without much delay, establish a railroad which would enrich the proprietors, while it would furnish important facilities to the commerce of the world. Should our proposed plan of a ship railroad, meet the eye of any person who may think it an object to raise the means of putting forward the enterprise, we shall allow him a liberal interest in the right of the invention.

**AN AGREABLE SURPRISE.**—A prisoner arrived at Baltimore on Wednesday week, from Hagerstown, convicted of larceny and sentenced to be confined for a term of years in the Penitentiary, was most agreeably surprised upon finding himself preceded by a pardon from the Executive of State.

**DISTILLERIES.**—There are in the United States upwards of 16,000 distilleries, which are capable of producing, annually, as is estimated, 41,000,000 gallons of distilled liquors, 500,000 assaults and batteries, 100,000 thefts, 800 suicides, and about 100 murders. Surely the distillers may be said to be great producers.

**AWFUL.**—An Irish servant girl was requested by a lady to go to a dry-goods-store and obtain "a bed-comforter" for her. About an hour afterwards she returned with one of the clerks. Of course the lady fainted.



The Chinese manufacture sheet lead for lining their tea chests, by pouring small quantities of melted lead on a flat surface of polished stone and placing another stone upon it, thus spreading it out to a thin sheet. Of course the stones must be moderately heated.

"When it freezes and blows, take care of your nose, that it doesn't get froze, and wrap up your toes in warm woolen hose."

The above, we suppose, was written in prose, by some one who knows, the effect of cold snows.

Fourteen hundred and ninety-nine—as well call it 1500,—houses have been erected in Baltimore during the past season. This looks decidedly prosperous for that city.

Somebody hits that it would be a work of charity for Gen. Taylor to seize the Mexican army, and clothe them. Perhaps the General has no clothes to spare.

A Massachusetts physician writes to a correspondent in Rhode Island, that an alarming state of health prevails at present in his neighborhood.—What can the poor fellow do?

Family jars, although often deprecated by sensitive and tasteful husbands, are said to be excellent preservative-atives of domestic sweets. Who took that kiver off?

The census of Chicago, for the present year, shows a population of 12,088. This is a wonderful increase for a place whose foundation dates but a few years back.

Some of the large steamers on the western lakes are said to have cleared \$26,000 each, during the past season. Several new ones have been commenced, and will be ready to commence running next spring.

Carter, the lion tamer, is said to have a little dog about half the size of a man's fist, which he carries in his bosom, so adjusted that his head answers for a breast-pin.

Somebody says—but nobody believes it,—that a South Carolina judge has decided that bowing three times to a girl is equivalent to an engagement of marriage. Boys must look out.

An opponent of our present tariff, in Washington, quotes from an English writer in support of his argument. That puts the boot on t'other leg entirely: we do not want a tariff to please the English.

Why didn't you go to Cork to-day, Paddy? Because, sure, an' wasn't it meself' that heard a gentleman say that there was to be an eclipse of the moon here this evening? so I stopped to see it.

Where a house is well furnished with books and newspapers, the children are usually intelligent and well informed; but if there are no books or papers, the children are ignorant if not profligate.

The number of bones in the frame-work of a human body, is 260. Each hand and each foot contains 27. It is indeed a wonder that such a complicated machine is kept in repairs so long.

General Tom Thumb has not been run away with by the European gypsies; but is displaying himself boldly at Lyons, and is soon expected to return to New York.

Of 285 students at the Medical Institute at Louisville, Ky., more than two hundred of them have signed the temperance pledge. We are not assured that they are all teetotalers, however.

A cartman in Baltimore returned from England in the Acadia with the proceeds of a large estate which has been left him. He can promote himself now to a carriage.

The railroad fare between Springfield and Northampton, Mass., a distance of about 25 miles, has been established at fifty cents. This will ensure the prosperity of the road.

About five hundred of the Sac and Fox tribe of Indians passed through Independence, Mo., a few days since, on their way to the lands assigned them by Government.

The Planet Venus may now be seen at mid-day in clear weather, a few degrees north of the sun's path, and about fifteen degrees east of the sun. Step out and see it.

In Peoria, Ill., a tax of fifty dollars per annum is assessed on every liquor shop: or in other words, the liquor dealers pay that sum for the privilege of ruining their neighbors.

It is reported that a large manufactory of railroad iron is to be established at South Boston, with all requisite facilities for extensive business.

The income of the Empress of Russia is said to be \$1,900 per day: enough to keep her busy at shopping, every pleasant afternoon in the year.

We have received nearly a hundred copies of the President's Message, via our exchange papers, and they have not done coming yet,—nor yet.

The Charleston (S.C.) Patriot states that a pond, at that place was frozen over on the night of the 20th inst. It was very good ice, what there was of it.

Miss Bremer says, that to make people virtuous, we should do more and preach less—make men happy, and they will be good of themselves.

A large public meeting was held at Chillicothe, Ohio, lately to adopt measures for the introduction of manufactures into that city.

An elderly gentleman being dangerously sick was advised to send for a physician, but declined, because, as he said he wished to die a natural death.



