

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

VOLUME I.]

NEW-YORK, THURSDAY, JULY 23, 1846.

[NUMBER 44.]

THE SCIENTIFIC AMERICAN,
The Advocate of Industry and Enterprise, and
Journal of Mechanical and other Sci-
entific Improvements,

PUBLISHED EVERY THURSDAY, AT 128 FULTON ST.,
(SUN BUILDING,) NEW YORK,

BY MUNN & COMPANY.

RUFUS PORTER,—Editor.

The contents of the *Scientific American* are probably more varied and interesting, than those of any other weekly newspaper in the United States, and certainly more useful. It contains as much interesting intelligence as six ordinary daily papers, while for real benefit it is unequalled by any thing yet published. Each number regularly contains from THREE to SIX ORIGINAL ENGRAVINGS, illustrative of NEW INVENTIONS, American and Foreign,—SCIENTIFIC PRINCIPLES and CURIOSITIES,—Notices of the progress of Mechanical and other Scientific Improvements,—Scientific Essays on the principles of the Sciences of *Mechanics*, *Chemistry*, and *Architecture*.—Catalogues of American Patents,—INSTRUCTION in various ARTS and TRADES, with engravings,—Curious Philosophical Experiments,—the latest RAIL ROAD INTELLIGENCE in Europe and America.

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Song of the Volunteers.

TUNE.—'Old Dan Tucker.'

The Mexicans are on our soil,
In war they wish us to embroil;
They've tried their best and worst to vex us
By murdering our brave men in Texas.
Chorus.—We're on our way to Matamoras,
On our way to Matamoras,
On our way to Matamoras,
And we'll drive the foe before us.

We are the boys who fear no noise,
We'll leave behind us all our joys
To punish those half-savage scamps,
Who've slain our brethren in the camps.
We're on our way, &c.

They've slaughter'd Porter, Kain and Cross,
Most deeply we deplore their loss;
Those bloody deeds we'll make them rue,
And pay them off for old and new!
We're on our way, &c.

We'll cross the famous Rio Grande,
Engage the villains hand to hand,
And punish them for all their sins,
By stripping off their yellow skins.
We're on our way, &c.

Herrera and Paredes too,
And all the chiefs of the vile crew,
We'll show unto their lazarons,
Mounted on a wooden pony.
We're on our way, &c.

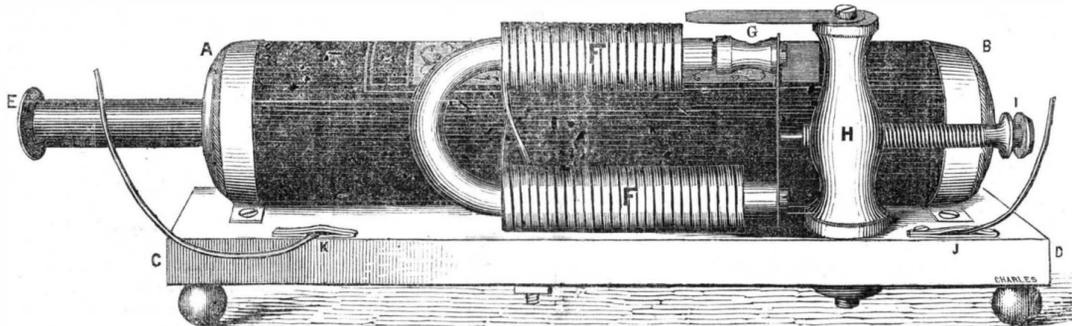
And when we've punished them enough,
We'll make them sell us out the stuff
To pay the war's expense, and then
We'll have besides, old Yucatan
We're on our way, &c.

Meanwhile our brethren at the west
Will for our nation do their best,
And when they've ended their long journey
Our flag will float in California.
We're on our way, &c.

We have a mission to fulfil,
And every drop of blood we'll spill,
Unless the tyrants of our race
Come quail before our eagle's face.
We're on our way, &c.

So every honest volunteer
May now come forth—the coast is clear;
We ask no odds, for we are bent
On having this whole continent.
We're on our way, &c.

SMITH'S ELECTRO-MAGNETIC MACHINE.



EXPLANATION.—We explained the principles of the ordinary machine for communicating shocks, in a former number. The machine containing Dr. Smith's improvement, is constructed in a similar manner in the main, and consisting of two helices, one within the other, and a bundle of soft iron wires in the centre. These helices are enclosed in a cylinder of morocco, and secured by two brass bands A B to a mahogany plate or platform C D. The central bundle of wires is encased in a tube of thin iron plate E, and may be occasionally drawn out, as shown in the engraving. An electro-U-magnet with a helical coil, F F, on each prong, is placed by the side of the cylinder; and near the end of the upper prong is a hammer, G, which is connected by a strip of platina plate to the end of the lower prong. This hammer is so adjusted, as to stand ordinarily about one-twentieth of an inch from the upper prong. Near the hammer is a brass post, H, the centre of which supports a horizontal screw, I, and the point of the screw approaches the platina plate on which the hammer is mounted. When adjusted for operation, one end of the wire which constitutes the interior helix, is connected to one pole of a galvanic battery; and the other end of the wire is connected to the helical coils, F F, which is also connected to the body of the magnet; and the post H is connected by another wire, to the other pole of the battery. Thus it will be seen, that while the platina plate continues in contact with the point of the screw, a circuit connection is closed via the magnet, screw and post, between the interior helix and the battery. But the current of electricity passing through the helical coils, induces a magnetic attraction which draws the hammer to the magnet, and consequently breaks the contact between the platina and the screw; and the circuit thus being broken, the attraction of the magnet ceases, and the platina returns to its former position by its own elasticity, again closing the circuit, and inducing the magnetic attraction, &c., thus producing in the hammer 10,000 or 15,000 vibrations per minute, by each of which, the circuit being broken or closed, a shock or wave of secondary electricity is induced in the exterior helix, and produces a sensible shock to any person who may constitute a part of a secondary circuit, connected with the two ends of the exterior helix. This helix is composed of fine wire, and for the purpose of communicating shocks, the two ends of the wire are connected to the two connection plates, K L, from which two other wires extend to two brass handles, so that any person by taking hold of one of the handles with each hand, completes the secondary circuit, and will be subject to powerful shocks; and these shocks are more or less intense, in proportion to the distance which the central tube is inserted within the helices. One peculiarity of this machine is that the wires of the external and internal helices are so connected to each other, that shocks equally, or even more powerful, are produced by connecting one of the secondary wires to either pole of the battery, or the solution therein. These machines, finished in elegant style, will be furnished at the low price of 7 dol. 50 cts. at this office.

USE OF THE BAROMETER.—1. The rising of the mercury presages in general fair weather, and in falling, foul weather, as rain, snow, high winds, and storms.

2. In hot weather, especially if the wind is south, the sudden falling of the mercury foretells thunder.

3. In winter the rising indicates frost; and in frosty weather, if the mercury falls three or four divisions, there will follow a thaw; but if it rises in a continued frost, snow may be expected.

4. When foul weather happens soon after the fall of the mercury, it will not be of long duration; nor are we to expect a continuance of fair weather when it soon succeeds the rising of the quicksilver.

5. If in foul weather the mercury rises considerably, and continues rising two or three days before the foul weather is over, a continuance of fair weather may be expected to follow.

6. In fair weather, when the mercury falls much and low, and continues falling for two or three days before rain comes, much wet weather may be expected, and probably high winds.

7. The unsettled motion of the mercury indicates changeable weather.

8. Respecting the words engraved on the register plate of the barometer, it may be observed that they cannot be strictly relied upon, to correspond exactly with the state of the weather, though it will in general agree with them, as to the mercury rising and and falling.

LARGE AND SMALL NEWSPAPERS.—It is one of the sorry errors of the world that the merit and value of a paper is supposed to go up with its size. Nothing can be more distant from the truth, and the world is a confounded boobey-head for entertaining it. Your mammoth sized papers are terrible bores—great diluters of sense—ghosts of ideas. Their editors may be very clever sort of men, expert at driving the quill, straddle the scissors with marvelous skill, and all that sort of thing, but they must necessarily spread an idea over a murderous extension, and fritter away its substance into foggy nothing. But he of your small sheet, with columns compressed into sensible coziness, must write nothing but ideas—and only the heart of them.—Brief, concise, terse, he must roll a sentiment in every syllable—a sermon in every word. Never take, then, the half-year's stock of a steam paper-mill for ideas, information, and those desirables. It is enough that they exhaust the language and give a thrice printed dictionary; more, you have not a right to look for. But if you want the mirror of the time—the spice of the age—live and recognizable ideas—look in papers of moderate and small size.—Woburn Gazette.

PORTABLE LIGHTNING.—An embryo Franklin was parading the streets on Saturday, with a small, but powerful magnetic machine under his arm in full operation. After inviting several persons to hold it a moment, he finally persuaded a darkee to lay hold of the very nice looking brass handles, while he went back a few doors of an errand. Unsuspecting Sambo grasped the machine with a pair of paws that might have held back a locomotive, but at the instant of contact he gave a twist of the face, a howl and backward jump of about six feet, looking at his palsied hands, and said: "Look-a-here young man, it's my 'pinion you is a debil or his first child, and dem shiny tings dare your horns." And amid the laughter of the by-standers, Sambo walked off awfully shocked at holding the devil by the horns.—Ex. Paper.

Poet-Tree.

Do not think
We can drink,
Free from care,
Where we are.
Now there come out,
And 'ake some route
That leads from hence,
And save your pence:
For should those Jews,
Once take such views
As once they had,
Our chance is bad:
And should we stay,
En gaged in play,
And drinking wine,
So late as nine,
We cannot be sure,
That we can secure
A safe retreat,
From Alden street
We have won;
Now the fun,
Being done,
Let us run:
We'll reach
The beach,
And float
The boat,
And cross o'er,
To the other shore,
And return to our lodging and revel no more.

QUEEN VICTORIA.—A correspondent of the Boston Courier says: 'I saw her Majesty very lately; she looked pale and ill, and wore an expression of satiety and discontent. Prince Albert was with her and bowed gracefully as he passed. You, accustomed to a land of liberty and equality, would doubtless smile could you see our Sovereign travel. The sound of horses feet is the first notice of her approach, and the next a troop of soldiers fly past as swiftly as a March wind, and raising just as much dust: then comes an open carriage, with four horses and military outriders, and seated therein is a lady with fine eyes, and usually wearing a shawl and drawn bonnet of pink, blue or straw color; the monarch of an empire on which the sun never sets. With her are Prince Albert and the Princess Royal; the second carriage contains the other children and their nurses, and the third is occupied by the Equerries in Waiting, &c. Our Queen is a pattern to her sex. She rises at seven o'clock; enters the nursery at eight, to indulge in a romp with her children, like any other mother; and at nine the household assemble for prayers; she prohibits breakfast being served to any one in the Palace, later than ten, over her highest rank.

EMIGRATION TO OREGON.—A writer in the Oregon Territory computes the Emigration into that territory by the sources of the Platte and the Arkansas rivers as follows:—

"In 1842, 137 men, women and children; in 1843, 872 men, women and children, and 1300 head of cattle; in 1844, 475 men, women a child, and 3000 head of cattle and sheep; in 1845, 3000 men, women and children, and 7500 head of cattle and sheep. These emigrating parties, together with smaller ones by sea, from the mountain, and from California, make the American population of Oregon about 8000; which, added to 1250 British, gives the strength of the white population of that territory."

The number of volunteers for the Mexican war, who offered themselves in Louisiana, says the New Orleans Bulletin, was 7000, equal to one fourth of the voting population of the State, and equivalent to 121,000 men from the State of New York, or 706,000 from the entire Union. The number actually sent into the field by Louisiana, is in the proportion of one in five and three-fifths of her voting population, equivalent to 90,000 men from New York, or to the enormous aggregate of 504,000 for the Union; developing a degree of military strength in the Republic, that may well surprise its friends and startle its enemies.

CHIMNEYS.—Instead of plastering the inside of chimneys in the usual way, take mortar made with one peck of salt to each bushel of lime, adding as much sand and loam as will render it fit to work, and then lay on a thick coat. If the chimney has no offset for the soot to lodge on, it will continue perfectly clean, and free from all danger of taking fire. A trial of three years warrants this assertion.

IMPROVEMENTS AT SACO, ME.—The Portland Advertiser says this town is growing very fast.—One large factory, and over 100 other buildings, some of them very large and costly, were erected here during the year 1845. There are now in this place five large factories, containing 38,944 spindles and 1,100 looms, making 202,000 yards of cloth a week. Another huge mill, to contain 24,000 spindles, and between 600 and 700 looms, is in process of erection.

THEM DIGGERS.—A second steam shovel arrived in town on Monday to be used at the Hour-Glass—making one on each end. They will dig into the hill until they meet in the middle, which will be we suppose in about eight months. After they have dug the dirt all away, we propose the contractor let them try their strength by digging into each other for the amusement of spectators. It would be as good as an elephant fight.—Vt. Jour.

JUMBLES.—Three pounds of flour, two of sugar, one of butter, eight eggs, with a little caraway seed, and a little milk, if the eggs are not sufficient.—Ex. Paper.

ANOTHER.—Tumble from a stage coach into a ditch, mix yourselves to a tender consistency with six trunks and a dozen band-boxes, try with one leg to extricate yourself, and fracture the other, and add, by way of sweetening and finish, a broken neck. There is nothing to compare with it.—Woburn Gazette.

TOO BIG A BOOH!—A man being about to purchase a young horse, was fearful he might prove skittish, as the phrase is; and in order to test his soundness, or strength of nerve, directed his boy to go a little way off, behind the next corner, and he would ride the colt down opposite to him, when he should start suddenly out, and cry 'booh!' and if the colt could stand that, it would be proof enough of his being firm and well broke. The boy took his station, and the man mounted and rode along; but when he came opposite the corner, and the boy jumped out and cried 'booh!' the colt threw him off. The rider picked himself up soon, however, and rubbing his shoulder and shins, asked the boy what he did so for. 'Why, father,' said the boy, 'you told me to say booh.' 'Yes,' said the old man, 'but there was no need of saying such a big booh to such a little horse.'

Anecdotes.

Old, but worth preserving.

ONE WAY TO GET RUM.—A rummer, who occasionally used to be short of change, had recourse to the following expedient to 'raise the wind.' He got two pint bottles, exactly alike, one in each pocket, he entered the grocery and called for a pint of gin. The bottle was filled and handed to him, when he put it in his pocket, at the same time telling the landlord he had no money. 'Then I won't trust you, so give me back my gin,' said the landlord. 'If you won't there's no harm done, added the other, reluctantly pulling the bottle of water from his pocket and handing it over, it was quickly emptied into the cask. There wasn't much harm done to the landlord, that's a fact, for although rummy had had this bottle of gin, the same number of pints were drawn from the cask.

DIAMOND CUT DIAMOND.—Under this caption, we find in an exchange paper, an amusing story of a Yankee pedlar who entered the store of a Yankee Merchant, for the purpose of selling him some 'first rate razor strops.' The merchant declined purchasing, but the pedlar insisted, and offered to take in payment any sort of goods in the shop at the full retail prices. To this the merchant assented, and having selected six dozen of the strops at six dollars per dozen, and secured a receipted bill, forthwith tendered thirty six of them at a dollar apiece in payment.

FAIR BETTING.—A correspondent of the Spirit of the Times says he saw an Irishman bet a Dutchman one dollar on Fashion, which of course the Irishman lost. Shortly after the money-taker came round, and was offered by the Dutchman the dollar he had won. 'No, no,' said the collector, 'this don't go, it's pewter.' 'Der duvyll,' said the Dutchman, 'I won it a little while ago of an Irishman—the cursed cheat.' 'Well, well,' said the collector, 'you've got another dollar—you must have had, or you couldn't have bet.' 'Oh, yes,' said the Dutchman, finding that he was cornered, 'oh yes, but mine Got, mine ish a bad one, too!'

AN EYE TO BUSINESS.—One of the best anecdotes that we have ever seen, illustrative of the Yankee character, is told of the two men, who were drifted on the little island near the head of the Niagara Falls, where they were apparently cut off from all possibility of safely reaching the main shore. At the moment when their friends had given them up as lost, the two individuals were actively employed in cutting sticks as canes, which they subsequently disposed of at a high price. This is indeed having 'an eye to business.'

INVESTIGATION.—A drunken sailor in riding through the streets recently found himself seized with an irresistible propensity to pitch forward, much to the annoyance and to the complete sacrifice of all horsemanship. Not being able to recover his centre of gravity, and far from suspecting that the cause was in any way connected with himself, he swore that the fore legs of his steed must be shorter than the hind, and actually stopped and measured them.

A LAWYER'S SPECTACLES.—A French countryman employed a lawyer to conduct a cause, but did not seem in a hurry to give him his fee. 'Friend,' said the attorney, 'your business is so continued I cannot see my way into it.' The countryman, who was aware of his meaning, drew two pieces of gold out of his pocket, and giving them to the limb of the law, said, 'Well then, sir, here is an excellent pair of spectacles for you.'

STREET YARNS.—A distinguished counsellor at Nantucket found a ball of yarn in the street, and winding up the thread, he followed it until he overtook the lady who dropped the ball, and had the other end of the thread in her pocket. The counsellor made his politest bow, put on his blandest smile, and returning her the ball, said, 'Madam, I have often heard of ladies spinning street yarn, but I never caught one at it before.'

PROPER RESENTMENT.—A mild tempered old gentleman was going down his cellar stairs with a lamp and old brown pitcher, on a frosty evening, and his feet slipping, from the first step, he was precipitated to the bottom. His wife, a nice old lady, hearing the noise, ran to the cellar door and called out, 'Why husband: have you broken that pitcher?' 'No I haint yet,' replied the old man, 'but be darn'd if I don't do it now,' and immediately smashed the pitcher against the cellar wall.

A LEFT-TENNANT.—'And isn't it an officer I am, sure?' said an Irishman who was standing alone in a large house, to a coney who was passing by. 'How so, pray?' enquired the other. 'Why because you see, all the other folks are gone, and I am left-tenant.'

A TAR'S TIMEPIECE.—As a thorough-paced tar was passing St. Paul's the other day, the clock struck twelve. Jack instinctively put his hand to his pocket, and pulling out his newly bought watch, exclaimed with evident satisfaction and a few nautical embellishments, 'There! if this little chap hasn't beat that great lazy lubber an hour!'

SCIENTIFIC.—An old lady who had been reading Locke's famous moon story very attentively replied with emphasis, that the idea of the moon's being inhabited was too incredible to believe; 'for,' said she, 'what becomes of the people when the moon is nothing but a little streak?'

ECONOMY.—An Irish servant, seeing his master about to throw a letter out of the window, said to him: 'O please yer honor, don't throw the letter away, but give it to me, if you please. I will send it to my father. I promised, sure and fast, I would send him one as soon as I came here.'

A HEAVY LOAD.—A little boy lately walked nearly a mile, carrying on his shoulder an iron article which weighs twelve hundred pounds! Don't start, reader: the article was patent steelyards.

Drawings of machinery, engraving on wood, and lithographic drawings, neatly executed, at the lowest prices, at this office.

POST MASTERS—Who receive this paper, will confer a special favor by mentioning the subject occasionally to scientific mechanics. The aid, also, and influence of all our kind patrons, in extending the notice and circulation of this paper, is most respectfully solicited.

Foreign News.

The steam ship Cambria arrived at Boston on Friday last, 13 1-2 days from Liverpool.

The famous Corn Bill passed the House of Lords on its third reading, on the evening of June 24th, without a division. On the Saturday evening following, Sir Robert Peel proceeded to the Isle of Wight for the purpose of tendering his own and his colleagues' resignation to the Queen: and on Monday night he made an exposition of his motive in resigning, in a long speech before the House of Commons. The attention of manufacturers and merchants is fixed on the American Tariff and strong hopes are entertained that the duties on imported goods will be reduced before adjournment of Congress.

There is much joy manifested throughout the kingdom, on the occasion of the happy adjustment of the Oregon Question. Every press expresses much satisfaction, and most of them compliment the honorable and patriotic course of President Polk, in submitting the question to the Senate. There is on this occasion more good feeling manifested toward this country than ever before. This subject is also treated in a similar strain in the French journals.

STILL LATER.—The mammoth steam ship Great Britain arrived on Tuesday morning, having been only thirteen days on the passage. She brings dates three days later than received by the Cambria.

One of the most terrific thunder storms ever known, passed over Devonshire on the fifth: also at Birmingham and Liverpool. Another battle had occurred between the French and the Arabians, in which about fifty were killed.

The Mexican accounts of the late collision with the American forces, had been received in England, and confirmed the conviction that the Mexicans are not able to contend against the American arms.

TOOLS FOR BOYS.—The Boston Cultivator very properly recommends to farmers to furnish their boys with tools of suitable and convenient sizes for them to operate with: and it is still more important that mechanics' boys should be furnished with such tools as will tend to induce a habit of, as well as a fondness for, mechanical industry. It is a fact that much of the time which is worse than wasted by the sons of mechanics, might and would be profitably improved, and with more pleasure and satisfaction to the boys themselves, if they were supplied with convenient tools for operating according to their own taste and fancy, but with suitable instructions with regard to the management of the tools, and the principal rules to be observed in their application. They should also be supplied with suitable materials, whether of wood, iron, or leather, and encouraged by occasional attention and commendation, which will infallibly induce them to prefer this kind of amusement to that of strolling, loitering, or playing at "rough and tumble," when not engaged with school lessons.

WIDE GAUGE RAILROADS.—Deep investigations have recently been made in England with regard to the relative merits and safety of the wide and the narrow gauge for railroad tracks, from the result of which, it appears evident that as a general rule, there may be as much safety in running railroad trains at a speed of forty miles an hour, on roads, the rails of which are laid six feet apart, as in running thirty miles an hour on tracks of 8 feet 10 inches, which is the ordinary gauge. With this view of the case, it appears evident that the rails on all the principal roads in this country will eventually be required to be re-laid on the wide gauge, in order to safely accommodate the speed required by the travelling public. During the rigid monopolies which at present exist on some of the routes, the proprietors may content their hearts with a jog trot speed of 18 or 20 miles per hour. But monopolies cannot be of permanent duration where public convenience requires accommodation, and competition must and will be introduced, even if Governors and Legislators have to be removed to effect it, and the result will be that the wide gauge and permanent rails will supersede those of the cheap and narrow roads in present use.

POISONOUS GAS.—It has recently been discovered that there is constantly issuing from the bottom of the Monongahela river, at a point opposite Pittsburgh, a highly noxious gas, composed in part of ammonia. Several persons have been drowned while bathing in the river at this place, supposed to have been occasioned by inhaling this gas; and recently a small alligator having breathed some of this gas, floundered to the shore and immediately died.

POLAR INDICATIONS.—It is a fact worthy of the attention of hunters, and of all who have occasion to traverse the forests, that all forest trees as a general rule, send out longer branches on the north, than on the south side. From this circumstance, it is an easy matter for any person who is bewildered in a forest, to ascertain which is the northern direction, and shape his course accordingly.

New Inventions.

A NEW GAS ENGINE.—An engine on a new principle has been invented by a Mr. Perry of Herkiman, and is now in operation at the store of Mr. Samuel Perry, in Front street, near Whitehall, and evinces an astonishing power in proportion to the minute quantity of material from which the power is produced. The machinery consists in part, of a cylinder, piston, pitman, flywheel and governor; in this respect similar to a steam engine. A small quantity of spirits of turpentine is kept in a warm state, and the vapor arising therefrom is mixed with fifty times its volume of atmospheric air. A small quantity of this hydrogenated air is drawn into the cylinder and ignited by a movement of the machinery, producing a slight explosion, whereby the remaining air,—at least nine-tenths of the whole,—becomes so heated that it drives forward the piston with great force by its expansion. This engine is said to be capable of working ten horse powers; and it is intended to substitute rosin instead of turpentine, which will reduce the expense of feeding it to about 50 cents per day. The ingenious inventor has had some difficulties to encounter in the construction of the first engine, but has a fair prospect of being well remunerated for his labor.

THE PARALLEL WATERWHEEL.—Some of our readers will remember that in No. 3 of this paper, we presented the plan and description of the parallel waterwheel, but which had not then been put in operation. One has since been constructed, and is in successful operation at East Haven, Conn. It is a small sized horizontal wheel, calculated to run under water—consequently not affected by ice nor back-water;—and so constructed that while the water acts equally on opposite sides of the wheel at the same time, it cannot escape any faster than the wheel moves; and consequently it gives more power in proportion to the quantity and fall of the water than any other wheel in use, without exception. These water-wheels are portable, and may be sent to any part of the country, ready set up and ready to run. Price \$75.

IMPROVEMENT IN THE GUITAR.—We have been shown a beautiful instrument of this kind, with an improvement which renders it superior to any other in use, with regard to its tone, elegance, and durability. The improvement consists in the addition of a tail-piece of peculiar construction, and secured by a dovetail, which renders it secure and permanent, and actually improves the tones. The strings are attached to this piece instead of depending on the permanency of the bridge to hold them. This improvement was invented by Signor J. E. Bini, who has taken measures for securing a patent therefor. A specimen may be seen at Kiefer's manufactory, 108 Delancy street.

PHOTOGRAPHIC PRINTING.—The editor of the Boston Atlas has received, or pretends to have received a letter from a London correspondent, stating that a late number of the "Art Union" appeared with a beautiful landscape picture, impressed or produced on the paper—on each sheet of the edition, of course,—by the sun's rays, on the photographic principle. Whether the editor of the Atlas has been hoaxed on this subject himself, or merely thinks to hoax his unscientific readers with nonsense, may be best known to himself: but the idea of working off an edition of periodicals with original "sun pictures," can not be swallowed by those who have advanced three steps from total darkness on the subject.

An Interesting Wonder in Astronomy.

We have never found an article or circumstance in the science of astronomy, which has excited more admiration in our mind, than the statement of M. Argo, the eminent French astronomer, on the subject of the distance of the planets. We are strongly inclined to the opinion, that the required addition of *four*, mentioned in the following statement, is in consequence of some inaccuracy of observation, occasioned by refraction or some other cause as yet unknown.

It is stated that if we place in a horizontal line, a series of figures, of which the law is evident, each doubling the preceding:

0	3	6	12	24	48	96	192
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—and afterwards add four to each, we should have a series denoting the relative distance of the planets from the sun. Thus:

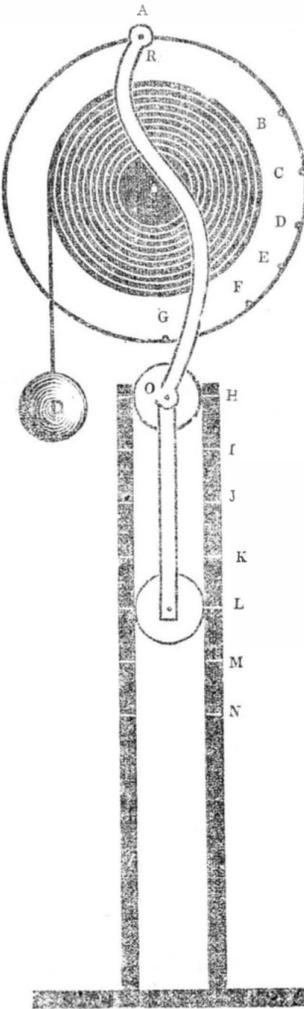
4	7	10	16	28	52	100	196
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Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus. If 10 represents the distance, of the Earth, 4 will be that of Mercury, 7 Venus, 16 Mars, and 62, 100, and 196 the respective distance of Jupiter, Saturn, and Uranus. This law was known as far as 100 years before the discovery of Uranus; and the distance of that planet being found to correspond, affords a very remarkable confirmation of its truth. But it will be observed, there will be a deficiency of one term between Mars and Jupiter, at the proportional distance of 28 from the sun. At this point a small planet was some time since discovered. This planet was named Ceres; and, since, three others have been found—Pallas, Juno and Vesta: all of which have their orbits so near each other as to lead astronomers to believe that they are fragments of a large planet, which had been shattered into pieces by some internal explosion, or the shock of a comet.

IMPROVEMENT IN MANCHESTER, N. H.—Ten years ago, says the Messenger, five thousand dollars a year were enough to carry on the business operations of Manchester. Now, the companies here disburse nearly one hundred thousand dollars per month! Verily, Manchester has sprung up as if by magic.

CEMENT FOR JOINING STONE.—Twenty parts of clean river sand, with two parts of litharge and one of quick lime, being mixed with linsed oil to the consistency of putty, is said to be an excellent cement for joining pieces of stone, when broken off from stone steps, posts, &c. It soon becomes nearly as hard as granite.

Science of Mechanics.



CRANK MOTION.—While the atmospheric resistance to the quick motion of machinery has been in a great measure overlooked, much has been said of the great loss of power by the "crank motion," and many ways and methods have been contrived for the ostensible purpose of avoiding it. We shall endeavor, however, in this number, to demonstrate that there is in fact no loss of power sustained by the use of the crank. It is well known and admitted to be an established point, that in raising ponderous bodies, in opposition to the force of gravity, an equal power is required to raise it a specified vertical distance, whether the motion be direct or oblique—perpendicular or inclined: and that the power produced by the descent of a ponderous body, a specified vertical distance, is uniformly the same, whether the direction of the descending body be perpendicular or inclined. This has been fully illustrated in a former number, treating on the subject of the lever principle and inclined plane. In the diagram at the head of this article, are seen two wheels on a common axle. Suppose the diameter of the large wheel to be six feet, and the circumference of the small wheel to be twelve feet: so that the semi-circumference of the second wheel may be equal to the diameter of the first. A *Shackle-bar* (drawn crooked merely to accommodate the reference, but without affecting the principle) is connected to the periphery of the first wheel, by a crank pivot at A, and also by another pivot to a vertical sliding-bar, at O, which answers in principle to the piston of a steam engine. To each end of the sliding-bar is attached a small wheel, which relieves it from friction in its vertical motion, being guided by two upright posts. From the periphery of the second wheel a cord descends to the ball P, which ball is supposed to be equal in weight to the shackle-bar, sliding-bar, and friction-wheels combined; and it will be observed that both the ball, P, and the wheel, O, will descend precisely an equal distance, in producing a semi-revolution of the wheel, notwithstanding that there is some difference in their relative progress; the ball descending one foot for each twelfth part of a revolution, while the sliding-bar, in descending one foot carries the crank-pivot from A to B, the next to C, &c. In its present position the sliding-bar has no influence on the wheel; its position, being at what is termed the "dead-point," and needs some little momentum, or other force, to carry it forward; yet it is evident that there is as much influence exerted on the wheel by these bars, in moving it from A to B, as would be exerted by the ball in descending one foot, and it will be readily seen that the shackle-bar has a greater influence on the wheel, by nearly fifty per cent., while the crank-pivot is passing from C to E, than has the ball in ordinary. The influence of the bars on the wheel is equal, in each stage of the progress of the crank-pivot from A to G. The influence of the ball is uniform. It has been supposed and contended that in the crank-motion there is considerable power lost in momentum, by changing the direction of the rectilinear parts of the machinery: but when the subject is properly considered it will be perceived that during the progress of the rectilinear machinery from the point of its greatest velocity to that of changing direction, the momentum thereof exerts an influence in forwarding the motion of the wheel, equal to the resistance of inertia from the commencement of motion in either direction, to the point of its greatest velocity. To conclude this subject, it is abundantly evident on the principle of the laws of equality, that the bars and wheels have an equal influence with the ball, in each stage of their progress from H to N—that the same rules will apply with regard to the other half of the revolution of the wheel; and that if the order is reversed and the driving power is applied via the rotary motion, the movement will be subject to disadvantages in consequence of the *crank motion*.

Arts and Trades.

THE MANUFACTURE OF STRAW PAPER.—The straw for this purpose is thrown into a vat and exposed for twenty-four hours to the action of lime water, and then boiled another day in water, by which process it is made sufficiently soft. It is then submitted to the mill, together with about one-tenth of its weight of old ropes, canvas, or refuse hemp, and ground to a pulp in a sufficient quantity of water, after which it passes into a box where it comes in contact with an iron cylinder covered with fine wire gauze; and as this cylinder revolves moderately, it takes up the pulp, allowing the water to escape, while the solid material is deposited on a broad flannel apron or band, which is kept in motion by passing over two cylindrical rollers, and the pulp becomes consolidated by passing between two or more pairs of small cylinders, and is then, by a continuous motion passed over a large drying cylinder, which is six feet in diameter. This cylinder is kept moderately heated by means of a stove of furnace adjusted within it, and the paper is pressed to the surface of the cylinder by another broad band of cloth which passes partly round it. By this operation the paper is thoroughly dried, and passes thence to a pair of rotary shears, by which it is cut into sheets of the requisite size, and the sheets are evenly deposited, one upon another to the number of 24 sheets, when, by another movement of machinery the quire is removed to make way for another succeeding quire. About two quires, or fifty sheets per minute are thus cut and deposited. Thus by a single operation of our combined machine, three or four thousand pounds per day, of coarse straw and other material, is converted to paper ready for market. The quantity of paper manufactured in the United States, in one day, is supposed to be sufficient to cover 1000 acres of land; or if formed into a strip one foot wide, would extend 5000 miles.

IMPROVED METHOD OF AQUATINTA ENGRAVING.

—After the intended figure is outlined, by etching or otherwise, the plate is covered all over with a ground of rosin, Burgundy pitch, or mastic dissolved in rectified spirits of wine; this is done by holding the plate in an inclined position, and pouring the above composition over it. The spirit of wine almost immediately evaporates, and leaves the resinous substance in a granulated state, equally dissolved over every part. The granulations thus produced, if examined through a magnifying glass, will be found extremely regular and beautiful. When the particles are extremely minute, and near to each other, the impression from the plate appears to the naked eye exactly like a wash of Indian ink; but when they are larger, the granulations appear more distinct. This powder or granulation, is called the aquatinta grain. The plate is next heated to make the powder adhere; and in those parts where a very strong shade wanted, it is scraped away; but where strong lights are wanted, a varnish is applied. The aqua fortis, properly diluted with water, is then put on with a piece of wax, as in common etching or engraving; and by repeated applications of this process, scraping where darker shades are required, and covering the light parts with varnish, the final effect is produced.

Engraving by aquatinta was invented by Le Prince, a French artist, by whom the process was long kept secret. It is even said that for some time he sold his prints, (which are still reckoned excellent specimens,) for drawings.

RUM AND WAR.—It appears by the statement of an affair in the Western army in a letter to his friends in Germantown, Pa., that there has been at least five times as many lives of the troops destroyed by rum and other liquors, as by the balls and bayonets of the enemy, within the last six months. He says that within three weeks after their arrival at Corpus Christi, "fifty grog shops had reared their hidra heads," in the immediate vicinity, and stood with open doors, with gaming tables, hot whiskey punch, Tom and Jerry, &c. and that "hundreds had been borne to their graves, the victims of intoxication, and diseases of every kind arising from excess." The climate and exposures have had very little effect on the temperate portion of the army, compared with that produced by intemperance. Is not Congress aware of the destructive effect of intoxicating liquors among the soldiers? Are the hands of the government so tied up by an oppressive constitution, that it has no power to remedy such health destroying and nation-degrading evils? If so, it is time for another general revolution throughout the country, to break the worse than tyrannical bands, and secure to this country the privilege of a government capable of protecting the army and citizens generally against the destruction and demoralizing influence of an enemy more to be deprecated than the oppressions which gave rise to the war of the former revolution.

MAMMOTH VEGETABLES.—The season has returned in which reports of beets, turnips, and beans of monstrous size may be expected from week to week. We have already heard of two mammoth beets, each twenty inches in circumference, and long enough to be mistaken for papooses; and many are vying with each other to see who can make out the most wonderful horticultural exhibition. For the purpose of setting these matters at rest, however, uncle Tobias Tongleford announces his determination to raise one or more carrots three feet in diameter, and four feet long: turnips 30 inches in diameter, and a cabbage head *seventeen feet* in circumference! Only think of it: what a monstrous cabbage that will be.

SINGULAR AFFAIR.—At Woonsocket on the 4th, a peaceable citizen being furiously attacked by an Irishman, on one of the bridges, the citizen suddenly grasped his assailant and jumped with him into the river. Hereupon a crowd rushed to the bridge, which gave way, and the crowd was precipitated into the water. No lives were lost, and it was quaintly remarked that the party had taken a public dinner of *cold duck*.



A dog was seen to pick up, eagerly, a bank note in State street, Boston, on Saturday, but immediately dropped it with a growl, and placing his paw upon it, tore it to pieces. It was proved, on examination of the pieces, to be a counterfeit.

Domanax being asked by a wag, 'How many pounds of smoke might be obtained from a hundred weight of wood?' calmly replied, 'Weigh the ashes, and what is wanting is smoke.'

Genius is cradled in poverty, and nurtured and reared among the stern and rugged scenes of existence. She could not bear the pamperings of luxury; she thrives best on the coarser fare of industry.

A violent tornado was experienced two or three weeks since in Mississippi, which extended in width about 150 yards, and destroyed in its course a new Baptist church, and 112 other buildings.

An unmarried lady, in Liberty, Wis., has brought an action against the editor of the village paper, for saying she was *old* and respectable resident. He should not say 'old.'

Some old fashioned greeney recommends that men of principle should be selected as our principal men. It is evident he knows little of the policy of modern politicians.

The inhabitants of Catania, Sicily, when last heard from, had been for several weeks kept in a constant state of alarm by a frequent succession of earthquakes; some of them quite heavy.

A city contemporary recommends to those who are in want of a *cheap boot or shoe*, to call on Young & Jones, No. 4 Ann st. We think they may as well take a pair while they are about it.

A convict at Boston has got clear from his sentence to the State Prison, by means of a writ of error, because the judge had omitted to give him any solitary confinement as the law requires.

It looks as decidedly awkward to see men raking hay by hand on smooth ground and where a horse-rake might be used, as to see them carrying it to market in their arms.

A new engine with a passenger train of 100 tons, lately performed the distance from Bristol (Eng.) to London,—118 miles,—in *two hours and twenty-six minutes*, including stops.

Some persons toil all their lives, and refuse the enjoyments which can only be relished when life is in its prime, that they may be rich when the power of enjoyment is over.

An anti-slavery lecturer, named officer, while delivering a lecture in Shannessville, Ohio, lately, was killed by a brickbat, thrown with great violence by a man named David M. Morris.

It is remarked that no instance has been known of a young child being killed or injured by lightning. If this is a fact, it is an extraordinary manifestation of a special Providence in all things.

Two veins of sulphuret of copper have been opened in Flemington, N. J., from which in three months, twelve hands have produced sixty tons of ore, valued at four thousand dollars.

An English paper speaks in praise of the beauty of a new article of muslin, printed in gold figures by a galvanic process. It is particularly calculated for window curtains and other drapery.

The artesian well at South Boston, has been excavated to the depth of 140 feet, and the contractor has prepared cast iron tubes for the purpose of extending the bore to an indefinite depth.

Glass milk pans have been introduced in the English dairies, and are esteemed preferable to any other. We should be glad to see them adopted in this country.

A duel was recently fought in France, with ivory billiard balls, thrown by hand. One of the parties threw with such force and accuracy, as to kill his antagonist at the first shot.

The favorite actress, Miss Josephine Clifton, was married on Monday evening, to Mr. Place, manager of the American Theatre at New Orleans. She will probably retain her Place.

A bill has been reported in Congress, proposing uniform postage of five cents on letters for any distance, and one cent on newspapers. It is the best rate yet proposed.

An Irish-American thus defined his position with regard to the Oregon Question: "I go up to five thousand, four hundred and forty degrees intirely, and devil a fut further."

Twenty one thousand shad have been taken from the Merrimac river at East Haverhill, within eight weeks. They are fools for coursing up that river among so many people.

Mr. Reuben Brown, an insane Millerite, leaped from the fourth story window of a house in Boston, a distance of thirty-nine feet to the ground, last week, without injury.

The experiment is about to be made, of paving a section of Broadway with cubical blocks of granite. If they are laid right, the experiment will succeed.

A window sill, weighing nearly ten tons, and intended for the new Howard Athenaeum, was hauled into Boston from the Quincy quarries last week. Not much *Howard* in that.

Counterfeit half dollars, made of German silver, are said to be in extensive circulation. They are dated 1838, and ring well, insomuch that the fraud is very difficult of detection.

A freshet occasioned by a late rain in Virginia, is said to have swept away every milldam in King George County, and several mills in Carolina.



Nature's Nobleman.

Away with false fashion, so calm and so chill,
Where pleasure itself cannot please;
Away with cold breeding, that faithlessly still,
Affects to be quite at his ease;

Original Song.

(Sung at the Meeting of the First Division of the Cherokee Cold-water Army, Tahlequah, May 6, 1846.

Come fathers and mothers,
And sisters and brothers,
And hearken awhile to my song;

Now Paddy, when sober,
Was mild as October,
And kind to his children and wife;

Whoever came near him
Had reason to fear him,
When liquor had heated his brain;

Such cursing and swearing,
And ripping and tearing,
'Twould make your ears tingle to hear;

His money he wasted,
To ruin he hasted,
A pallet of straw was his bed;

O! such was the story
Of Paddy O'Rory,
Till once a kind gentleman came,

What magic was in it!
From that blessed minute
O'Rory became a new man;

No longer he staggers,
No longer he swaggers,
No longer he curses and swears;

There's peace in his dwelling,
And little ones telling,
Their love to a father so kind;

Now what was that paper?
That wonderful paper?
The Temperance Pledge was the same.

Beauty and Innocence.

The rosy hours of childhood,
How beautiful they seem,
While glides life's fairy shallop,

How pure the thoughts of childhood!
In life's unshadowed hours,
They float amid a fairy land

Jumble.

A certain Irishman, making love to a lady of great fortune, told her he could not sleep for dreaming of her. It is said to be peculiarly pleasant to see a man going to a theatre with his family, who owe you two dollars, which you have asked for several times in vain.

Whoever came near him
Had reason to fear him,
When liquor had heated his brain;
For boxing and fighting
He took such delight in
As if there were pleasure in pain.

Trouble at Jerusalem.—A tremendous battle was fought in the church of the Holy Sepulchre at Jerusalem on last Good Friday, between the Greeks and Latins. The subject of contention was whether or not the carpet should be removed from the floor.

The Telegraph.—During a tremendous shower at Philadelphia, the lightning is said to have coursed along the telegraphic wires like a rocket on a line. Among those who saw this phenomenon, was an Irishman who had just turned out of his lair, and gone to work on a building in Somerset street, over which the wires pass.

Amiable Simplicity.—'Pray Madam,' said a young gentleman, addressing the daughter of one of our booksellers, whom her father had deputed to stop in the store while he stepped to the next door.

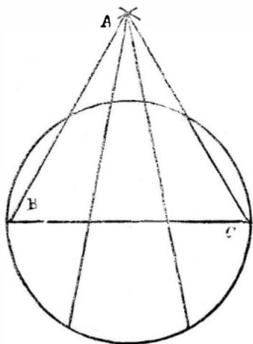
Phonography.

When a person has become accustomed to writing with these signs, and to reading them, he will generally be able to read his own writing without the use of any vowel signs. For example, "if the sentence 'No gentleman will insult me, and no other can,' be written, 'n gntlmn wll nsit m nd n thr cn,' the writer thereof would find no difficulty in reading it or any variety of paragraphs written without vowels.

Table of phonographic symbols for words like eat, it, ate, et, art, at, aut, ot, tee, tay, tar, tau, tou, toe, too, toy, eep, ip, ape, ep, pa, poo, eef, if, ef, off, fa, fee, fo, fy, ear, air, ar, or, ra, re, roe, roy, eel, ill, ale, ell, lay, lee, li, loy, eth, ith, oath, uth, thee, tha, thou, thy, each, aich, etch, arch, char, cha, cho, choo.

We have not attempted to give in this scale, a full variety of combinations; but a sufficient variety to enable a learner to form many other of the most common and simple combinations, and to write many words and even sentences for himself: and it will be better for him to practice the writing or formation of these characters or signs, for a reasonable time before he attempts or even understands the mode of joining the signs together, as in regular phonographic writing.

A Curious Fact in Geometry.



Divide the diameter of a circle, A, B, into three equal parts, and with the dividers extended to this diameter, describe the point C: draw lines from this point to A and B, and also through the points of division, to the opposite periphery, and these four lines by their intersections, will have divided the circumference into six equal parts.

Magnetic Telegraph.

The approach of the steamer Cambria was announced in Boston by means of the Marine Telegraph, while the vessel was yet nearly forty miles from the harbor. But this news did not stop at Boston, but was, within five minutes, also announced in New York by means of the Magnetic Telegraph.

Parsing Lesson for Grammarians.—They see:—you see them see:—they see we see them see:—you see they see we see them see:—they see I see you see they see we see them see.

Geological Gleanings in Mississippi.

The ridges extending between these hollows, such as they exist now in the newly cleared, uncultivated, and forest portions of this range, have the same description and depth of soil on the sides and declivities as on the summits, and rarely present any natural sections of stratification. They are now greatly changed and water-worn, where the lands have been long or negligently cultivated, and numerous channels, cut by the action of the rains, penetrate the different strata of clay, sand and gravel which underlie the rich vegetable mould of the surface.

In the whole course of this bluff range, the localities most remarkable for excessive unevenness of surface, and the magnitude and depth of the depressions, are in the rear of Fort Adams of Rodney, Grand Gulf and Vicksburg, and at each the soil is deep and rich in an extraordinary degree but from extensive tracts, aided by the plough and favored by the steep declivities, it has long since migrated, and contributes to the extension of the Mississippi delta, into the Gulf of Mexico.

The western verge of this alluvial tract terminates abruptly, and frequently in almost perpendicular cliffs. The base of these is washed by the Mississippi at Loftus Heights, near the 31st deg. of latitude, at the White Cliffs, a short distance below the mouth of St. Catherine's, at Natchez, Rodney, Grand Gulf, and Walnut Hills, or Vicksburg. They approach, also, very near the river, and in view of it at Pine Ridge, below Fairchild's Creek, at Villa Gayoso, below Coles' Creek, and at Warrenton. Between these points the range recedes more or less from the river, leaving the intervening portions of the recent alluvium before described. Above the Walnut hills the bluffs come into the Yazoo river at the site of the old French fort St. Peter, now known as Haines' Bluff, and approaches it nearly at Sartaria, Yazoo City, and at other points in Holmes, Carroll, and Tallahatchie Counties.

Here is found profusely spread on and near the surface, the most considerable and continuous deposit of diluvium or drift which occurs in the county. It is composed of coarse gravel and sand, with occasional beds of plastic clays variously colored, the stratum dipping or inclining apparently to the west, and being exposed again in the escarpment of the Mississippi bluffs. These loose materials are found strewn along the channels of the creeks for many miles; the coarse gravel, however, gradually diminishing, and is rarely met with nearer than four or five miles from the river.

Connected with this formation, on a branch of Coles' Creek, a few miles south-westerly from the principal eminence, are found two considerable mounds, about half a mile apart, nearly insulated, and composed chiefly of a dark ferruginous conglomerate or iron stone, large misshapen masses of which, of several tons in weight, lie exposed on the surface. The lower and most considerable of these rises sixty or eighty feet above the creek which washes its western base, and embraces an area of several acres. In the vicinity of these, in a cove nearer the sources of the creek, the face of the cliff is indented by broad perpendicular fissures, exposing sections of thirty or forty feet in height, of red and white sand intermixed with a ferruginous adhesive clay. No stratification is apparent, but the lower portion of the deposit is somewhat mixed with gravel. Fifteen or twenty feet below the surface, several blocks or shafts of petrified wood about five or six feet long and eighteen inches in diameter were found projecting from the face of the cliff, from which smaller fragments in considerable quantity had fallen to its base.

Many ravines occur in the county: the most numerous and considerable of these are found within a short distance of the western verge of the bluff, as at Natchez and on Pine Ridge. Most of these have a direction somewhat parallel with the general curve of the river, rather receding from it and discharging the occasional accumulations of rain water, which they receive into the St. Catherine and Fairchild's creeks.

A few of the less extensive are merely protrusions of the chasms or breaks in the bluffs, prolonged by the washing and caving in of the surrounding cultivated lands. These ravines claim a notice from their magnitude, the rapidity with which they are extending themselves, and as the chief depositories of the fossil remains found in the county.—The one on Pine Ridge, known usually as the Mammoth Bayou, is several miles in length, discharging itself into St. Catherine a short distance above the railroad, about three miles east from the Mississippi: the upper end has approached to within a mile and a half of the river. This ravine is from one to two hundred feet across in many places with an average depth of about fifty feet, penetrating occasionally to the blue clay. The sides are precipitous and often perpendicular, and are continually caving in during the winter rains: acres of land being annually undermined and precipitated into the abyss, the numerous ramifications or branches thus extending themselves and encroaching fearfully upon the surrounding fields. Here have been found portions of several skeletons of the Mastodon and other animal remains.



The Millerites.

That Papacy is the power or institution spoken of in the prophecies as "the abomination that maketh desolate," has been generally admitted by Protestants of all denominations since the days of Luther; and the Millerites have produced volumes of evidence, comparing prophecy with history, to prove that the taking away of the daily, and setting up the abomination that maketh desolate, refers to the suppression of Paganism and the establishment of Papacy in its place: and taking the ground that the periods of 1290 days, and of 1335 days mentioned in the 12th chapter of Daniel, both commence with this event, they have diligently examined the various histories of Rome and of the church to ascertain at what time this event occurred, or what circumstance might be rationally supposed to constitute the consummation of that event, and show the proper date for the commencement of those periods. Mr. Miller had examined that ground, and observing that the military victories and success of arms, whereby Papacy gained the ascendancy over Paganism, occurred in A. D. 508, and that in 1798,—just 1290 years later—a French army under Berthier took possession of Rome and made a prisoner of the Pope, he (Miller) concluded that the longer period of 1335 days would terminate in 1843. But finding themselves mistaken in this calculation, his adherents have now adopted the argument that in all cases in which prophetic periods have been given, they were counted from the completion of the events which were to constitute their commencement. Thus in the case of the Babylonish captivity, the 70 years were counted, not from the subjugation of the Jews, when Nebuchadnezzar took possession of Jerusalem, and carried the principal men into captivity, but from the completion of the desolation, and destruction of the best part of the city ten or twelve years afterward. Also, in regard to the seventy weeks "from the going forth of the commandment," &c. (Dan. ix. 25); several decrees favorable to the restoration of Jerusalem, had been issued by different kings of Persia, in the course of 30 years; but this period is proved to have commenced with the very last and final decree for that object, or with the actual execution thereof. It is therefore argued that these later periods must commence with the completion or consummation of the events and measures by which the ascendancy of Papacy became established. It is now stated by those who advocate this doctrine, and on the authority of Dupin, Gibbon, and other historical writers, that Clovis was the first king that embraced the Catholic faith; and on this occasion he received the title of "Most Catholic Majesty and Eldest Son of the Church;" and being a warrior whose arms "were everywhere successful," he applied all the power of his arms against the enemies of the church, to the suppression of Paganism and the establishment of Papal supremacy, according to the prophecy, Dan. xi. 31, that "arms shall stand on his part," &c. His most important victories and success of arms in this respect, were about A. D. 508; but he devoted himself to the founding of churches and monasteries, severely punishing with stripes those who refused obedience to the church, till the year of his death, A. D. 511. In July of that year, he called a council, consisting of thirty-three bishops, for the purpose of discussing and deciding on measures for the regulations and permanency of the Papal church, which now triumphed over Paganism. This was the last important event in the career of Clovis, by whose arms Papacy had been established; and as he died in November of the same year, no later event can be found on which the commencement of these prophetic periods can be fixed with the least apparent propriety. Thirty years after this event, A. D. 541, and when the Pope had acquired "power and dominion and great authority" from the Emperor Justinian, the consular power at Rome was abolished, and the Pope came into full possession of the city of Rome (the seat of the beast, Rev. xiii. 2.) and there was never afterward any other power resident at Rome, and acknowledged as supreme until after its conquest by the French in 1808. This event fixes the commencement of the "time, times and a half time;" "forty and two months;" or "a thousand two hundred and three score days;" during which the power of the beast should continue; and it is well known to the present generation that 1260 years from this date,—which is 1290 years from that before-mentioned,—a treaty was negotiated under the dictation of Napoleon Bonaparte at Paris, by which Papacy was finally and permanently divested of nearly the whole of the great power and authority which it had exercised for 1260 years: and this treaty was ratified in September, 1801. The Millerites, some of them at least, are perfectly confident, that history can never be made to furnish any other three events which will so perfectly apply to mark the commencements and terminations of these two prophetic periods: and the reader will see that "if these things are so," the other period of 1335 days must terminate in 1846.

Sensible Extract.—How beautiful, how sublime the precept, 'forgive us our trespasses as we forgive those who trespass against us.' But who would willingly be thus adjudged? Who is there that does not hope for more mercy at the hand of his Maker, than he has shown to his fellow men? And yet how positive is the sentence that 'if ye forgive not men their trespasses, neither will your Heavenly Father forgive your trespasses.'

THE NEW YORK SCIENTIFIC AMERICAN.

PUBLICATION OFFICE
128 Fulton street, Sun Building.

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Planes of all kinds; braces and bits, vices, anvils.
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Patent safety fuse for blasting.
A fine assortment of grindstones.
Agent for the sale of Swift's patent coffee and spice mills, suitable for coffee roasters and grocers. Together with a full assortment too numerous to mention. Call and see, and go away satisfied.
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THE TORPEDO ELECTRO-MAGNETIC MACHINE.



The subscriber takes this opportunity of apprising the public that, at the last Fair held by the American Institute, he obtained the premium and medal for the best Electro-galvanic machine on exhibition. Since then he has made a new and very important discovery in these by which he can give out the pure magnetic fluid, or the primary current. Its efficacy is truly wonderful.
SAMUEL B. SMITH,
Inventor and manufacturer, 297 1-2 Broadway, left side going up. July 16-18w.*

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Of the most simple, safe, and convenient construction for electro-typing, horticultural, and other Galvanic Experiments, for sale—price 75 cents,—at the office of the Scientific American.
Electro-plating in all its branches, brilliantly executed as above.

Patent Agency

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A Rare Chance for a Manufacturer.
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Comprising Weights, Measures, Mensuration of superficies and solids, tables of squares and cubes,—square and cube roots, circumference, and areas of circles, the mechanical powers, centres of gravity, gravitation of bodies; strength, weight, and crush of materials; water-wheels; hydrostatics, hydraulics, statics, centres of percussion and giration; friction, heat, tables of weight and metals; pipes, scantling, and interest; steam and the steam engine.

By J. M. SCRIBNER, A. M.
Recently published, and for sale by HUNTINGTON & SAVAGE, 216 Pearl st., price \$1.12 to \$1.50. jny1

General Patent Agency.

THE subscriber has established an agency at his Warehouse, 12 Platt street, New York, for the protection and general advancement of the rights and interests of Inventors and Patentees.

The objects of this agency are more particularly to aid and assist Inventors and Patentees in effecting sales of their inventions and of goods and wares made therein—and also for the sale and transfer of Patent Rights. Arrangements have been made with a lawyer familiar with the Patent Laws, who will attend to the legal branch of the business upon reasonable terms. Satisfactory references will be given. Applications may be made to the undersigned personally, or by letter, post-paid.

SAMUEL C. HILLS, General Patent Agent. apr16 3m*

A. G. Bagley's Celebrated Improved EVER POINTED GOLD PEN.

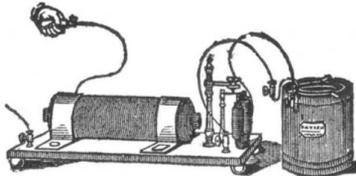
THIS Pen received the highest premium at the last Fair of the American Institute, and has been pronounced by the first teachers of Penmanship in the country to be infinitely superior to any Gold Pen ever before introduced to the American public. The lasting properties of this Pen are undoubted, owing to the total absence of corrosibility from any of the inks in use, and the peculiar shade of the nibs, (which was first introduced by Bagley, (makes it more pleasant to use, renders it less liable to damage, more easy to repair, and prevents the necessity of the great care that other articles of the kind require.)

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Improved Magneto-Electric Machine, and the instruments for Medical Electricity. Gilding and Silvering Apparatus, with Instructions. Davis's Manual of Magnetism, 228 pages, price 75 cts. apr22d.

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All letters on business must be post paid, and contain a suitable fee, where a written opinion is required.
Office on F street, between 7th and 8th sts, opposite the east wing of the Patent Office.
He has the honor of referring, by permission, to Hon. Edmund Burke, Commissioner of Patents; Hon. H. L. Ellsworth, late ditto; Judge Cranch, Washington, D. C.; Hon. R. Choate, Massachusetts, U. S. Senator; Capt. H. M. Shreve, Missouri; H. Knowles, Machinist, Patent Office. april 23m*

TEETH

THE cheapest office in this city for Dental operations is Dr. Brown's, 280 1-2 Broadway, between Reade and Chambers st.
Natural and mineral teeth inserted from \$1 to 3 50
Decayed teeth filled with white cement, and warranted useful for mastication, 50
Toothache cured effectually without pain, 50
Teeth extracted with less than half the usual pain 50
Dr. BROWN,
280 1-2 Broadway, 3 doors above Chambers, next to Stewart & Co.'s new store.
References can be had from several hundred families, also to the medical faculty of the city. nov18

DR. CHRISTIE'S GALVANIC RINGS



MAGNETIC FLUID.

This remarkable invention, which has received the almost universal approbation of the medical profession of Great Britain, comprises an entirely new application of Galvanism, as a remedial agent, by means of which the ordinary Galvanic Batteries, Electric and Magnetic machines, &c., are entirely dispensed with, and the mysterious power of Galvanism applied without any of the objections which are inseparable from the general mode now in use. The strong doses, and at irregular intervals, in which Galvanism is applied by the machines, has been pronounced, after a fair and impartial trial, to be decidedly injurious, and it was to remedy this radical defect that this new application was projected, which, after unceasing toil and perseverance, has been brought to its present state of perfection. The Galvanic Rings answer all the purposes of the most expensive machines, and in many other respects are more SAFE and CERTAIN in accomplishing the desired object.

The Galvanic Rings have been used with entire success in all cases of Rheumatism, acute or chronic, applying to the head, face or limbs; gout, tic-doloreux, tooth-ache, bronchitis, vertigo, nervous or sick headache, indigestion, paralysis, palsy, epilepsy, fits, cramp, palpitation of the heart, apoplexy, stiffness of joints, spinal complaints, lumbago, neuralgia, nervous tremors, dizziness of the head, pains in the chest and side, general debility, deficiency of Nervous and physical energy, and all nervous disorders.

In cases of confirmed dyspepsia, which is simply a nervous derangement of the digestive organs, they have been found equally successful. Their extraordinary effects upon the system must be witnessed to be believed, and as a certain preventive for the preceding complaints they are equally recommended. The Rings are of different prices, being made of all sizes, and of various ornamental patterns, and can be worn by the most delicate female without the slightest inconvenience. In fact, the sensation is rather agreeable than otherwise.

The Galvanic Belts, Bracelets, Bands, Garters, Necklaces, &c.

In same cases of a very severe character and of long standing, the power as applied by the Galvanic Rings is not sufficient to arrest the progress of disease, and ultimately to restore health. The improved modification in the Galvanic Belts, Bracelets, &c., entirely remedies this objection; any degree of power that is required can readily be obtained, and no complaint which the mysterious agent of Galvanism can effect will fail to be permanently relieved. These articles are adapted to the waist, arms, wrists, limbs, ancles or any part of the body with perfect convenience. The Galvanic Necklaces are used with great benefit in cases of Bronchitis or affections of the throat generally; also in cases of nervous deafness; and with almost uniform success as a preventive for apoplexy, and epileptic fits, and similar complaints.

Christie's Magnetic Fluid

Is used in connection with the Galvanic Rings, and all their modifications. This composition has been pronounced by the French Chemists to be one of the most extraordinary discoveries of modern science. It is believed to possess the remarkable power of rendering the nerves sensitive to galvanic action, by this means causing a circulation of the influence at the seat of disease, and thus giving rapid and permanent relief. No other composition in chemistry is known to produce the same effect as to impart a similar property to the nervous system by means of an outward local application. The Magnetic Fluid contains nothing capable of the slightest injury, its application is agreeable, and it is as harmless in its action as it is beneficial in its result. Full explanations and directions accompany it. The combined inventions are in every way perfectly harmless; they are at prices within reach of all, and the discoverer only requests a fair trial, as a test of their surprising efficacy and permanent benefit.

Christie's Galvanic Strengthening Plasters.

These articles form another valuable application of the mysterious influence of Galvanism. They are an important adjunct to the genuine Galvanic Rings and their modifications, acting upon the same principle, but having the advantage of more local application. They are confidently recommended as a valuable addition in the speedy cure of rheumatism, acute or chronic; in all nervous complaints, and as a positive remedy in cases of pain and weakness in the chest or back, pain in the side; in asthmatic affections, and in weakness or oppression of the pulmonary organs. In spinal complaints, their effects are of the most decided character, and they have been used with complete success. They are also of the greatest advantage in pains and weakness of the breast, and are highly recommended for many of those complaints to which females are especially liable. As an effectual means for strengthening the system when debilitated with disease or other causes; as a certain aid in constitutional weakness, as a preventive for colds, and in all affections of the chest generally, the Galvanic Strengthening Plaster will be found of great and permanent advantage. In a few words, it embraces all the virtues of the best tonic preparation, with the important addition of the Galvanic influence, which is neither impaired nor exhausted, while the action continues. These articles will be found entirely free from those objections which are a constant source of complaint with the ordinary plasters in common use.

The great celebrity and success of CHRISTIE'S Galvanic and Magnetic Curatives, has caused them to be counterfeited by unprincipled persons. The public are therefore cautioned to beware of all imitations. Dr. Christie has but one authorized Agent in each city of the Union. The only Agent in New York is at No. 182 Broadway,

Between John street and Maiden Lane.
*A liberal discount is made to purchasers of these articles for places where there is no established agent. A new book on Galvanism and its Application as a Remedial Agent, may be had, gratis, at the General Agency, 182 Broadway. june25.

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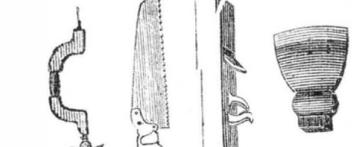
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N. B.—All letters directed, post-paid, to S. B. MERKEL, Founder-machinist, millwright, draughtsman and Engineer, Philadelphia, Pa. feb11.



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Tool Store, at the Corner of Chambers and Chatham streets, Mechanics, Farmers, &c., will find an assortment of good Tools, suitable for almost every branch of trade.
H. R. feels obliged to his many customers, of every class, for their past patronage and hereby assures them that no pains shall be spared to procure the best articles in all variety.
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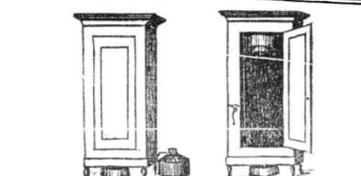
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