

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

## Volume I. 1

 ning, at the SUN BUILDINGS,
-Entrance 128 Fulton st, and 89 Nassau st.(The Principal Office being at New Yorli,) RUFUS PORTER,--Editor. Fiach number of this paper is furnished with
fromitwo to five Original Engravings, many fronitwo to five Original Engravings, many
of them elegant, and illustrative of New In
ventions, Scientific Principles, and Curiventions, Sciemtific Principles, and Curi-
osities; and contains as much Interesting In. telligence as six ordinary daily papers, consist.
ing of notices of the progress of Mechanical and other Scientific Improvements,---Ameri American Patents; ;-.Scientitice Essays, illustra
tive of the principles of the Sciences, of Me chanics, Chemistry, and Architecture;--In
struction in various arts and Trades ;-urions struction in various $\Lambda$ rts and Trades ;-curions
Philosophical Experiments ;-Miscellancous In telligence, Poctry, and, occasionally, Music. This paper is especially entitled to the pationage of
Mechanics and Manufacturers, being the only paper in in America devoted to the interests of those classes; ; but is
particulararly usefult to Farmers, as it will not only apprise
them of impruvements in agricultural implements, bu them of improwements in agricultural implements, bu
iustruct them in various mechanical trades, and surid
sur them against impositions. As a family newspaper, it
will convey more uselil intelisence to chillren and
ind young people, than five times its cost in school instruc-
tion. Another imporant argument in favor of this pa-
per. per, is, that it will be worth two dollars at the end of the
year, when the voume is comple, and will probaby
command that price in cash, if we may judge from the
circumstane that command that price in cash, if we may juyge from the
circumstance that old volumes of the "New York MMe-
chanic," by the same editor, will now command double TERMs. "The Scientific American" will be fiurnished
To subscribers at $\$ 2$, per annum,-one dollar in adou subscribers at $\$ 2$, per annum, -one dollar in ad-
vance, and the balance in six montls. Five copies will be sent to one address six months, for
four dollars in advance. Any person prouuring two or more subscribers, will be
entitled to a commission of twenty-five cents each. entited to a commission of twenty-five cents each.
TERMS F AvERRITIIG. - For 10 lines, or less, 50
cent for the first, and $12 \mathrm{I}-2$ cents for cvery subsequent
insertion.

The Frog,
achine poetry. Of all the things that live
In woodland, marsh, or bo That creep the ground or thy the air
The funniest is the frogThe frog-tese scientifickest
Of Nature's handy workOf Nature's handy work-
The frog, that neither walks
But goes it with a jerk. Will pants and coat of bottle green,
And yellow lancy yest, He plunges into mud and mire
All in his Sunday best ;
 As Paddy O'Kinn once said,
And, for convenience sake, he wears,
His eye on top his head. You see him sitting on a log,
Above the " nasty deep,", You feel inclined to say, old cha
Just " look before you leap!" You raise your canc to hit him, His igly-looking mug
But, ere you get it half But, ere you get it half way
Adown he goes KER-CHUC He keeps about his native pond,
And neer goes on a apree,
Nor gets "how-come
 For earthly cares to gel drunk
He's not the silly fool; But, when they come, he gives a Ju
And drowns 'm in the pool. Yankee Land. I wish I was in Yankee land I'd suck sweet cider tillI $\begin{aligned} & \text { burst, } \\ & \text { And fish in every rain. }\end{aligned}$
I'd never wander from my home
To visit foreign scenes, To visit foreign scenes,
But always to my mammy stick
And live on Ponk AND BeANs

Sonnet in Praise of lnvention. Great was Archimedes, Galileogreat-
Great was Copernicus; who from the fetters Great was Copernicus; who from the fetters
Of ancient error freed the Starry State, Great were the Ptolemies, , rreat was Tycho Brahe,
Pythagoras, and Counl Rumford, and Macadam, Pythagoras, and Count Rumford, and Macadam,
Waatts, Alkwright, Kepler, and the man whose pa
Wa Was once the owner of the town of Haddam. Great was Sir Humphrey Davy, Roger Bacon,
Great is Daguerre, and Richard Adams Locke, Franklin, by whom the thunder's throne was shake
Great was the inventor of the wooden elock. Compound Interestr.-If an Eng been placed out at compound interest at five per have produced the enormous sum of $£ 1,017,055,5111,-$ $126,677,845,110,793,317,430,411,529$, whicl, laid down
edgeways, would measure the immense lengh of
54 eddeways, would measure the immense lengh of
$54,292,888,880,329,484,980,173,827,118,308$
milese and make $1,559,862,220$ of or earth in solid yold. At
simple interest it would have produced only 7 s . 9 d .

IMPROVED STEAM DIARY APPARATUS


Expianation.- An iron stove about two feet long, and eighteen inches high, contains within it a cylindrical boiler, and within the boilct, the smoke pipe $B$, where it cscapos. $\Lambda$ generator $C$ made of wood is placed a few inches above the stove, and has two or more try.cocks on it
side, whereby the side, whereby the depth of the water thercin is ascertained. The water within the boiler is containcd bet ween the two cylinders, and communi
cates with the water in the gencrator by the pipes, one of which extends from the top of the boiler to the bottom of the generator; and the other cates with the water in the generator by the pipes, one of which extends from the top of the boiler to the bottom of the generator; and the other
extends from the side, or from the bottom near the side of the generator, to the bottom of the boiler at D. By means of this arrangement, -the generator being about half? filled with water, and a fire placed in the furnace, -a current of water constantly ascends from the boiler through the tance from the stove is a werge the second; hus or two way cock, so constructed that the steam cannot be wholly suppressed, nor escape in only one dircetion at the same time. From this valve water-vat, and terminates within a casing of wood-a longitudinal piece of plank, the sides of which are perforated for the purpose of distributing the steam equally in the different parts ol the vat. Another vat-the milh-vat-made of tin plate, and of dimensions nearly equal to the interior of the water-vat, is sot therein, and is intended to contain the milk in preparation for checese. By this arrangement the space betwcen the two vats being nearly filled with water, the milk may be gradually and uniformly waimed, ly admission of steam into the water-vat. A thermometer, G,
suspended at the side of the milk vat, the bulb being immersed thercin, and accutately indicates the comperature of the milk during the process. This apparatus will also be found very convenient for readily and cconomically haciting owater, for various purposes in which hot water is required in farming establishments. It was invented by Mr. Gordon, Farmer, of Mohawk,
and will furnish the machines, or rights therein, on the most reasonable terms.

Devilirry.-A great many queer stories are told
of the facts and the necromantic tricks of the Herr
Alexander who is now pulting all iormer magician Alexander, who is now putting all former magicians
in the slade. One was related to us by a lady
which struck us which struck us as being , nore wouderful than any
in we had before read of. The performer desired a
number of gentlemen of the audience to loan him number of gentilemen of the audience to loan him
their handkerchiefs, aud proceeded to collect some
dozen or fourtee, dozen or fourteen of them, which he plunged into a
bow of clear water, standing in full view of the
and couppany. Mang or he handerchiess were no
exactly suited for exhibition to a fastidious assem. bly, as two at least of the owuers of the same used
stufli, but this did not appeear to trouble the magician at all; he put them in the water together and
stirred them around with the air of oue deternined
to make them white to make them white as snow. He then took them
fiom the water and lield themi up to view with the
fuid streaming from them, fluid streaming from them, -a mass of wet rags.-
He then proceeded to ram and amin hem, wet as
they were in the they were, in the mouth of a blunderbuss, which
being done he fired off the picce over the heads of the audience. To the minds of many present it
scemed that the washed handkerchiefs worc now done gone, blown away lorever-but not so, for aut
instant afterwards the Herr opened a box whlich
stood near lim and took from it all the haudlierchiefs perfectly clean, nicely ironed, ueatly folded,
and scented witt lavender: Every inum had lis bit of cambric returned to him, and every man,
snuff takers included, enjoyed the e riagrance of his
cleapsed and odoriferous "wipe" How blest nust cleaused and odoriferous "wipe." How hlest inust
that woman be who rejoices in the Herr as her that woinan be who rejoices in the Herr as her
spouse, how happy the small family with the mighty
magician for an innate! A Cheerful wife.-A (oood writer lits remarked
that a woman may be of great assistance to her husband by wearing a cheerful snile continually
upon her countenance. A man's perplexities aud upon her countenance. A man's perplexities a his
g.oominess are increased a hundred fold, whicn his
better half moves about with a continued scowl upon her brow. A pleasant, cleerful wiete is as a railu-
bow set in the sky, when her huiband's mind tossed with storms and tempests; bul a dissatisfied
and fretful wife, in the hour of trouble, is like one ol those fiends who are appointed to torment him. Professional Candonour.-A stail aud demure-
looking quaker lady called on our neighbor, Dr. looking quaker lady called on our neighor, Dr.
Christie, a few days since. "Will the Galvanic
Rings cure depression of spirits?" asked the lady. "What has cruscd the complaint, madam ?" re-
plied the doctor. "the loss of my husband," mournplied the doctor. "the loss of my husband," mourn-
fully ejaculated the lady. "Then you lad better
geta wedd
to do the same.


A cheara beEAGFAST.-A \&on of Erin, at Schen-
ectady heard the breakfast bell ring on board of a
candul boat as starting out for Buffalo. The fragrance of the viands induced him to go aboard. "Sure, Captain, dear," said he, "an, what'll y
ax a poor man for tliravelling on your illigant swan ax a poor uan for thravelling on your illigant swa
ov a boat ?"
"Oent "Only a cent and a half a mile, and
plied the Captain.
"An is is the vittles ye mean to find, sure ?" "Yn" is it the vitles ye mean to find, sure?", And if you're going along come down
breakfast." Pat din't wait to be told a second time, but hav ing descended into the cabin and made a heart
meal he came again on deck and requested that the boat might be stopped.

$$
\begin{aligned}
& \text { poat might be stopped. } \\
& \text { "How far have we cone, just" asked Pat. } \\
& \text { "Only a litte over a mile." }
\end{aligned}
$$

$$
\begin{aligned}
& \text { "Only a little over a mile.". } \\
& \text { Pat thereupor handed the Ca } \\
& \text { coollv told him that he believe }
\end{aligned}
$$

coolly told him that he believed he would not $g$. any fiurther with him, as Juddy would wait he
breakfast, not knowing that he had breakfast out. The ioke was so good that the Captain took the cents, ordered the boot stopped, helped Pat ashore and told him that should he ever have occasion
travel that way agan lic should be most lappy carry him.
To get a Tiahr Ring off a Finger.-Thread a
needle flat in the eye with a strong thread ; pass the end of the needle with care under the ring, and pull
dirough a few inches towards the hand ; wrap the through a few inches towards the hand; wrap the
long end of the thread tightly around the finger, relong end of the thiread tightly around the hinger, re-
gularly, all down to thc nail, to reduce its size. Then
lay hold of the short eud of the thread and unwind lay hold of the short end of the thread, and unwind
it. The thread pressing against the ring will lrad-i.
ually remove it irom the finger. This never failing
method will remove the tightest ring witlout difitme.hod will remove the tightest ring without diffit
culty, however inuch swoolen the finger may be. The Thousands of IIRAEL.-According to the
Faithful Watchman of Zion-the organ of the or thodox German Jen s-there are in Italy, $50,000 \mathrm{I}$
raelites; in Holland and Belgium, 80,000 ; in Eng laud, 30, no0; iu Deunark and Sweden, 5,000 ; in Russia, 60,000 ; in Poland, $1,500,000$; in Hungary,
160,000 ; in European Turkey 300,000 ; and in oth 160,000 ; in European Turkey, 300,00
er parts of Europe about one nillion.
Mountains of North America.- The highes
peaks of the Rocky Mountains are Brown and Hook er Mountains. They reach up three miles above
he level of the ocean. The Black Mountains North Carolina, and the White Mountains in New Hampshre, are one mile and a quarter high. N
other point of the great A palachian range is above
a mile in height

CATALOGUE OF AMERICAN PATENTS ISSUUED IN 1844.
CLAss XV.- Sontone and Cllay Manufactures, inclu-
ding Machines for Potery, Glass-making, Brickmaking, dressing and preparing Stone, Cements,
and other buidding materials. Moulding brick, John Booth and Wm. H. Steven-
son, Columbus, Miss.- Jan. 6 .
 Town, New Haven, C.--Sept. 27.
Brick press, Mark Twitclell, Gray. Me., June
 Nathan Sawe. Se, Badtimore, Md..., S. Set.'. 27; Benja-
min H. Brown, Philadelphia, Oct. 3 .
Dressing Mill-stones, John Black, Helena, Ark., Aug. 10.
Stone-cutters, Jacob Jenkis, Roscoe, IIl., June 2.
Dressing Stone, Hammond Ward, Charlton, Mass. April 10.
 Cork-sole Boots, William L. McCauley, Balti-
more, Mud., June 5. Bot-crimps, Joitialı M. Read, asignee of Abra-
hinm Thayer, assignee of Josialı Copeland, Boston, Jan. 20: Pclatiah Stevens, jr.,Canton, Mass., July 15. Eoot-slank, leaiah Gale, Natches, Miss., July 11.
Crimps for 'Collar pad, Joseph S . Barkdull, Ballston, N.Y, July 13.
Harness check-hookr, Abel B. Buell, Westmore-
land, N.Y., Marclı 13. Horse-hames, Nathan Post, Madrid, N. Y., June
15: Joseph K. Slater and Sylvester G. Pratt, Boston, Sept. 20.
Machinery for forming hats of leather, Randal Fish, New York, Oct. 12 .
Machine for cutting raw hides, William Marshall and J. B. Thursby, Brooklyn, N.Y.: Sept. 4.
Making Leather, Robert Downey, New Albany, In.: June 15.
Splitting Leather, Alpha Richardson, Boston: eiz Construction of Saddles, Samuel Ringgold, Fort
McHenry, Md. Oct. 7 .
Sewing machine, James Res. Sewing machine, James Rogers, New York: Ju-
ly 22.
Cutting Soles, Richard Richards, Lynn, Mass. December 16 . 16 , Chind Cox, Georgie Mills, Edinburgh
Tanning, Joll Tanning, Jolun Cox, Georgie Mills, Edinburgh,
Scotland: June 5 ; Adan Kettering and A. Vogle,
Hempfield, Pa.: June 24; William Brown, Man-
chester, Md.: August 1.
CLass XVII.-Household firniture, machines and
implements for comestic purposes, including implements for domestic purposes, including
washing machines, bread and cracker machines, feather dressing, etc.
Bedstead, Wm. F. Converse, R. H. Penny, and Bedstead, Win. F. Converse, R. H. Penny, and
R. S. Haunifiord, Harrison, Ohio: December 31.
Bureau bedstead, Henry W. Kingman, New Bureau bedstead, Henry W. Kingman, New
Oork: October 12, Sacking bottoms of bedsteads, Isaac Cooper, Johnstown, Pa.: October
Sofa bedstead, G. L F.
Sickels, Middletown, Ct.: December
Sickels, Middletown, Ct. : December 4.
Bread knife, Franklin Ryse, Berlin, Ct.: Oct. 9.
Machine for making brooms, Jacob H. Lachaster, Par : Marking brooms, Jacob H. Hinton,
Scrubbing-brusles, George Carver, Chambersburg, Pa: August 1.
Trimming the bristles of brushes, Samuel Taylor, East Cambridge, Mass.: May 17.
R ocking-chair, A. C. Stiles, South Bloomfield, Ohio: September 27 Coflee pots, Daniel Rowland, Washington, D.C.:
Coll September 17.
Cracker machine, W. H. Tuttle, assignee of J. ohnson and Otis Freeman, Boston: May 17. Cutting sausagelmeat : William Pittenger, Rome
Ohio: March 26; Edwin Clark, Hartford: Aug. 31.
Machines ;or producing exercise, Oliver Halatead, New York : March 13. Fruit and vegetable preservers, Peter Kephart, Uniontown, Md.: September 24.
Reftigerator, D. Evans, Phildelphia: March 25,
Washing nach Ohio: February 2; Ephraim Lukens, Baltimore',
March 9; Lewis Woodward, Medford, N.J. : April 4; William Newbrough, Wooster, Ohio : April 17; Wiliamt, Soule, Stafford, Ct.: May 17: Oliver B.
B. nold, Rochester: July ; David Kaufman, Mohecan-
ville, Ohio: August 21; Natlian Parish, Rubh, N.
Y.: December 4. .. December To be continued.
American Ralleoad lron.-The Mountour Iron
Company's mills, at Danvile, turn out beautiful Company's niliss, at Danvilie, turn out beautiful
specinens of $T$ rail, made entirely of Anthracite pig iron. The Pottsville Gazette says "The rails
exhibited to us are 18 feet in lenght, and weight
fity fifty-one pounds to the yard; we have never seen nd finish, and it is believed that the material itself is superior to that generally employed in England
for similar purposes. These rails are made for the
Lancaster Road, and several tons we understand Lancaster Road, and several tons we understand
are already completed. The Montour Company
will be able to turn out at least 10,000 tons per Cincinnati--The commerce of Cincinnati is already immense. In the article of groceries alone,
the following have been the imports since January last: Coffee, 44,351 sacks; sugar, 11,285 hhds. ; mo-
lasses, $19,263 \mathrm{bbls} ;$ pepper, 1,235 bags; raisins, $12,-$ lasses, 19,263 bbls; pepper, 1,235 bags; raisinc, 22 ,
410 boxes; rice,, 253 tierces. In grain, \&., we まvewexw=w cheese, 65,481 boxes and 905 casks, and 134,000
packages of merchandise. packages of merchandise.

NEW-YORK, THURSDAY, DECEMBER 4. Science of Mechanics


Motion rrojection, inerrin $\overline{\text { E Momentumi-We }}$ speak of motion, but without defining or fully ex plaining it. There are several kinds of motion, which are designated by the terms Rectilineab, Cur-
vilinear, Circular, Rotary, Excentric, Spiral, Vibravilinear, Circular, Rotary, Excentric, Spiral, Vibra-
tory Undulatory, Compound and Crookcd. Rectitory Undulatory, Compound and Crooked. Recti-
linear motion, has a straight forward course, whether continuous or vibratory. Curvelinear motion describes the arc of a circle, and if continued, it be-
comes a circular motion. Rotary motion is also, comes a circular motion. Rotary motion is also,
circular, in a limited sense; but in this, the moving body is supposed to revolve on its own axis. Excentric motion, is rotary in its principle, but varies
from a regular circle;-The moving body being carried farther from its axis in one part of its revo-
lution than in another. Spiral motion is also rotalution than in another. Spiral motion is also rota-
ry, but the moving body in its revolutions, progres. ses more or less in the direction of the centre of its
axis; thus each part af the moving body, conforms o the direction of a thread of a screw. Vibratory motion may partake of either the rectilinear or curzontal directions. Undulatory motion is similar to the vibratory, only that its directions are vertical.Compound motion consists of two or more of the
other motions combined; and crooked or irregular motion is supposed to be governed by no speceificd
laws, and of course its track is never perifctly relaws, and of course its rack is never perlicctly re-
peated. The opposite of motion is rest ; and a atate of motion appears to be quite as natural for all bodies, as a state of rest. The same force is refuired
to produce rest, in a moving body, as to produce to produce rest, in a moving body, as to produce
motion in one at rest. A body once in motion, will as one at rest will continue at rest.
as one a rest will continue at rest.
Quantity of power is usually designated by the Quantity of power is usually designated by the
vertical distance which a given weiglit may be raised in a given time; or the weiglt that may be raised a given distance in a given time: or, the time in
which a given weight may be raiscd a given verti cal distimes ; thus, in cither case, the quantity of
power is designated by the comteraction of the forre of gravity. $\Lambda$ much better mole, however, of
desiguating phumitity of pomer, is by the amount of inertia that may be overcome, or, the velocity with
which a given weight in a given time may be put in motion. Thus, to give 1001b weight a velocity of
64 fect per second is equal to raising $1001 b$ a vertical distince of gif feet in iut equal time.
A force of 7 lb . being applied 10 a weight of 7 lb ., and the application of the force being continued
through a spaco of 4 leet, the weight will have acquired a velocity of 16 feet per second. If 28 lbs or pressure or force be appliced to 7 lhaw weight, through
a space of 1 fout; or 1 lb . pressure througli 28 fect space, the volocity of the weight will be the same. If four times the power be applied to an equal
weight through an equal space: or if an equal weight through all equal space: or if an equal Force. Weight. . Space. Velocity.

. 32 feet long) a velocity of 32 fect per second; as to
give 7 lb ., (the weight of 16 feet of water) a vel ty of If feet per second. And as the momentun of a body in motion, is we thenc as the power applied
in producing its motion, it follows that 32 feet of water with a velocity of 32 feet per second, will re-
quire 8 times as quequircd to stop the imotion of 16 feet, with a ve-
locity of 16 fect per second. $\Lambda$ forcc of 14 lb . being applied to a wecight of 14 lb . and the force entinued one second of time, will produce a velocity of 32
fect per second. Whence it is inferred, that a resistance of 14 lb . continued one sccond of time, will overcome the momentum of the said weight. If 7
lb. force be applied to 7 ll . weight, and the presbe applied to 7 ll . weight, and the pressure continued onc second, a velocity of 8 feet per second ance of 7 lb . continued half a seccond: or $31-2 \mathrm{lb}$.
continued one second to stop its motion. Thus it appears that the resistance requisite to overcome the momentum of a column of water with a velocity of 8
feet per second, is four times as great as that required to resist a velocity of 8 feet per second. A force or pressure of 101b. being applied horizontally to ball whose weight is lolb. and this force continued space of 16 fect, and will have acquired
space of 16 fect, and will have acquired a velocity
of 32 feet per second. If double this force is applied, during one second of time, the velocily of the
ball will have becn doubled, and the space passed ball will have becn doublec, and the space passed
over will have been doubled also. If double the force is applied to an equal extent of distance, the
velocity will not be doubled, although the momenum will be doubled, and a double resistance would be required to stop the motion of the ball; but ir
the force is exerted during an equal time, the velocithe force is exerted during an equal time, the veloci-
ty will be doubled, and a quadruple resistance will be required to overcome the momentu
the motion. $\quad$ (To be continued.)

## $\underset{\text { The art of Painting. }}{\text { Thent }}$

Transiparent Painting on Cambric.-This art is extensively practised, in painting screens and
window shades. The window shades. The cambric or muslin is prcpared
by bcing stretcled on a frame of convenient size, being secured by acks at che cages, and sized with
a mixture of fine flour pate, white glue, and white
bar soap, in the proportion of one pound of flour to bar soap, in the proportion of one pound of four to
four ounces of glue and five ounces of soap. The
soas be of the whlite or transparent kind, and soap must be of the white or transparent kind, and
serves to soften the other ingredients and render the serves to soften the other ingredients and render the
cloth pliable and elastic. 'Tne flour is first made incloth pliable and elastic. 'Tne flour is first made in-
to paste, and while loot, the soap is added, with a few to paste, and while hot, the soap is added, with a few
drops of essence of cinnamon, lemon, or lavender, to prevent unpleasant perfumes. The glue is to be gether, and diluted with water till it will work freely with a common paint brushl, while cold. A thin sizing is spread on the work side of the cambric:
and if the sizing is well proportioned and applied it will be nearly invisible when dry. A coat of pure inseed oil, diluted with an equal quantity of spirits
of turpentine, may be applied to the whole surface, of turpentine, may be applied to the whole surface,
or only such parts of it as is intended to receive the or only such parts of it as is intended to reccive the
coloring; it must be applied quickly and uniformly, that the transparency may be equal in all parts; and if a little copal varnisl be mixed with the oil, it will
be the better. The frame, with the cambric, must
mat be the better. The frame, with the cambric, must
be placed between the artist and the principal light, be placed between the artist and the principal light,
hat the lights and shades may be seen distinctly during the process of painting. 'The colors used in
this branch, generally consist of lvory Black, Prusthis branch, generally consist of lvory Black, Prus-
sian Blue, Ultramarine, Paris Green, Crystals of sian Blue, Ultramarine, Paris Green, Crystals of
Verdigris, Gamboge or Turmeric, Lake, Umber, Verdigris, Gamboge or Turmeric, Lake, Umber,
and Burnt Umber, Terradesienna and Burnt Terradesienna, and Gum-asphaltum or Brunswick Blacking. (The Turmeric is prepared by steeping it in
alcohol, and straining off the liquor, which may be alcohol, and straining off the liquor, which may be ground in oil, diluted with spirits of turpentine, to vitriol, to hasten the drying of the japan or white vitriol, to hasten the drying of the colors. An out-
linc of the design is drawn with a hair pencil with
dith dilute umber or ivory black; after which the colors
are applied, more or less dilute, as more or less are applied, more or less dilute, as more or less transparency is required. In general, the brightest
colors should be applied first, and afterward the colrs shoudd be applied first, and alterward the
darker shades or colors. The operator will find it requisite to turn the work-side to the light occasion-
ally, to sce whether the opaque surface of the ally, to sce whether the opaque surface of the co loring and shading correspond with the transparent view; for it is the peculiar property of good
work of this kind, to appear cqually well in an transparent or opaque view. In regulating the shades for the purpose, it is sometimes requisite to mix white
lead with the colors, which increases the shade in the transparency, while it reduces it in the opaque. Stencils, in sets made to match, are used with ad-
vantage in this branch, especially in the formation of borders and scroll cmbellishments. The colors must be applied with soft brushes and laid smooth-
ly; and if any part receives too dark a coloring the ly; and if any part receives too dark a coloring, the
only remedy is to scrape off the paint from such only remedy is to scrape of the paint from such
parts before it is dry. The best design for window parts before it is dry. The best design for window
shades, consist of laudscape views, and should be always designed to accommodate the form and posi-
tion of the ground on which they are drawn. With regard to the rules of coloring and shading land-
scape vievs., we must refer the reader to our next scape vievs. we must refer the rea
number. (To be continued.)
Expenses of Warr.-From 1793 to $1815-\mathrm{a}$ period of 22 years,-England, France, and Austria expended $\$ 7,330,000,000$ in war. The interest o
this sum, at 6 per cent., would be sufficient to build 50 miles of good railroad per day at a cost of $\$ 25,-$ 000 per mile.
The expend and prepparation for war, from 1789 to 1843, was $\$ 932,755,000$. The interest on this sum would give a constant support to $1,000,000$ of inhabitants-give
a liberal education to all the children in the United States: or, if applied to the cultivation of the pubStates: or, if applicd to the cultivation of the pub-
lic lands, would supply all the inhabitants of the

Britisi Rallzoad to Oregon.-The London Colonial Guzette says:-"The great inter-colonal line of railway to connect Halifax with Quebec, is designed to complete the long chain of communica
tion from the Atlantic on the northwestern side o tion from the Alantic on the northwestern side
the continent of British North America; encircling the lakes of Canada, and piercing the far west, till Pacific. It is the grand project of a great age. Add to it the electric telegraph, and the transmission of
thought from one ocean to the other. Of the value and importance of the colonies of Britisl North America to the parent state, too high an estimate
can scarcely be formed. Fancy Costumes.-The peculiar costume of
Georga, is said to consist of a shirt collar and a Georgia, is said to consist of a shirt collar and a
pair of spurs :- that of Mexico, a blue ribbon and a string of beads:-Southern Indians,-a small piece of rope round their waist. Sandwich Islands,
-an ostrich feather. Texas,-a straw hat and a -an ostrich feathcr. Texas,-a straw hat and a pair of spectacles. Anti-mormons,-a quill behind and bottle of anti-ague drops.
Effects of Hent.-Cast iron expands by 200 1-177. Mercury $1-45$. Water 1-23. Oils 1 -e 2 . 1-177. Mercury 1-45. Water 1-23. Oils 1 -e2. Al
cshol 1-9. Cast iron melts at 2786 degrces of heat. Copper melts at 1996 ; silver at 1873 ; brass at 1672 lead at 612 ; tin at 442 ; wax at 142 ; water boils at grees below zero.
A General Treat.-One item in the "General wallis, was that "a gill of rum should be issued for every soldier, in evidence of the Governor's hearty nongratulation with them on the ocrasion."
Adantage of Advertising.-A lady in Providence, R. I, having ordered an advertisement of
 g the several pairs in a compound battcry, is by diameter. Each cup is provided with a small brass post, which is soldered to the rim of the cup, and projects upward an inch or more, terminating in a screw, to which a nut is fitted: and a crease being
cut in the side of the screw, one end of the wire is placed in the crease, so that when the nut is run down on the screw it binds the wire to the post, a
shewn in the cut at the head of this article. shewn in the cut at the head of this article. A mor plain pieces of cocter and consists of a series plain pieces of copper and zinc plates, placed in
cells prepared for them, in a box made of wood about one foot long, six inches wide and five deep. These cells are formed by partitions of wood and leather alternately extending lengthwise, or from
end to end of the box. The interior of the box, and all the wood partitions, are thoroughly coated with a varnish consisting of asphaltum and beeswax
melted together and diluted with spirits of turpentine. The plates are then placed alternately in the several cells, and by the sides of the wood parti-
tions, so as to be at as great a distance as possible tions, so as to be at as great a distance as possible
from the leather, and connected by wires as before from the leather, and connected by wires as bef ore
described. The cells then being filled with the saline solutions described in No. 11, the battery is ready for action. This battery, which, by way of distinction, is called the Compact Battery, is the
most simple of construction, and the most conve niently portable fir itinerant lecturers, or practitioners, of any in use; and being constructed with a
trunk lid, the galvanic arrangement is entirely concealed from view, while in actual operation and per forming wonders, which are to be described here-
after. Grove's Bat'cery.-This is the most powerful, and in many respects the best battery in use. It is
constructed on the same general principles as those before described, but with this difference, that in stead of plain copper and zinc, the plates consist of platina, and zinc analgamated or coated with mer-cury:-instead of leather, a partition of unglazed
porcclain is placed between the metallic plates; and iastead of the saline solutions, fuming nitric acid is used in one apartment, and dilute sulphuric acid in
the other. These articles are arranged in glass cups or tumblers, and connected consecutively in the kind of battery that is nsed in producing the elec tro-magnetic action in Morse's Telegraph and tor the ignition of Coll's suhmarine explasive lathery, fill descriptions of whel will he: given in titure numi
bers. One humdred pairs, on dhis principle, bcing properly connected, will communicate the magne-
tic power through a continuous copper wire two or three hundred miles in lengtl. We may give a more minnte description of

The following may be read upwards on a hou sand differnt ways, by beguning at the Ictucrs
in the centre.



lmprovemonr on me hermacx.-A now and ben recently formed in Massaclussetts; and is constructing a dam and canal on the Mcrimack, uear
Andover Bridge, for the purpose of manufacturing perations, on a scale equal to that of the Lowel companies. The stock in this concern, already
commands 25 per cent advance in the market; and in consequence of the operations of this company, he stock in the old Andover bridge, has atwance for many miles round, has been enlanced by this movement, thus adding fresh proof to the axiom,
that the surest method of increasing the wealli of ; community, is by introducing and encouraging improvements in industrial facilities.
Scandalous.-Rev. Mr. Fairchild, who was no long since tried, and to the minds of many, prove
guilty of an aggravated case of seduction, hut supposed to have escaped conviction in conscquence han his victim or her friends, has been recently in alled as a pastor of a clhurch in South Bostor We are informed that a majority of the
clergymen disapproved of the installation.
Southern Superiority.-That the people of the southern sections of the Union are incomparably
uperior in point of tact and firmness, to those of the northern, appears in bold relief' in the fact, tha he interests and influence of less than 90,000 slavcformation of most of the laws of the U. S., agains nore than 600,000
lavery
Narrow Esciape.-We lately saw, from our of ing across a part of the street, with his head nea the curbstone, and demurely gnawing a hone, when posterior, and if he had had a tail it would surely and consequently did not even wink had no tail head when the; wheel passed.

Few Economy in Fuel.
Few subjects of improvement have received more
attention for the last twenty years than this, and it is with many people a matter of astonishment, that as
late as within fifty years, and in the most enlightened with fire places in which more than twelve times the fuel was required to be consumed in order to warm equal purpose, in a modern approved stove. Still here are those who appear to understand little o
an true principles of economy in this respect ; an me even in this city, continue the usc of fire places or chimney grates, from the fires in which, two thirds
of the radient heat escapes up the chinney to warm of the remaining ney is composed. And in some instances, even where a stove is used, the pipe or funnel is made as short as possible, so that the heat escaples by the But we are glad to find many who understand the thing better, having looked into the theory of it but yet there is one essential point which appears to have been in a great meassire overlooked, eve by those who are supposed to have given the most
attention to the subject; that is, the facilitating the adiation of heat by an atmospheric current, or the stove. We do not mean by this circulation, facilitate the combustion of the fuel, but to carry of the heat rapidly from the surface of the stove as hast as it radiates through the iron. We have see number of flanches or leaves, projecting from the exterior of the stove, for the ostensible purpose of
presenting as much surface as possible to the surpresenting as much surface as possible to the su rounding atmosphere; but the effect of this plan opreven, rather than promote a of escape of son is obvious; for if any quantity of atmospheri air is by any means confined in contact with the eated surface, this being a bad conductor of hea mmediate vicinity of the stove. But if, on the oth er hand, the surface of the vertical part of the stove smooth and even, then each particle, or minute y of caloric, becomes rarified, and rising by it own buoyancy, passes ofl vertically, thus producing
a current of rarified air which is thus circulated hrough the room; and the quantity of heat thus dirculated, is in some measure proportionate to the
velocity of this current. For an illustrative experiment on this subject, let any person select a spot on the surface of a stove that is red-hot, and blow with common hand bellows directly on that spot for a Whe atmospheric current thus produced will have urried oll the caloric from that spot so rapidly, that
ven the now will have lost its redness, and become degree preverned the radiation of heat ilirough the it; but has at the same time removed it so suddenly from the surface, that a part of even that which had onstituted the redness of the iron, has gone with it, fion of the heat emanating from the burning fuel Xow, thercfore, we would recommend that in the onstruction of stoves, regard may be had to facili-
a tating a free circulation or current of air over the
xterior heated surface.
Oprosirion To Manciactronies.-A young weallhy planter, from South Carolina, who had entertained in inveterate aversion to the cotton manu-
factorics of the north, recently resorted to a pernal opposition to the recent o the Lowell facto ries, by selecting from onc of ille mills, one of the of a clergyman, took measures to prevent her ever cturning to the mill, to aid in the odious business of combine and follow this example, it would go farrers than all the veliement declamations of the tur bulent orators of the Carolinas.
Fionima-The cmigration into Florida this seathe country is fast filling up witl enterprising se licrs, who prefer buying their ice ready
ending the process of its manufacture.
To Correspondents.-The communication
D. T., of Auburn, is reccived, for which he has ou vent its insertion for the present. S. H. G., of Unionsville, las fiurnished the mos ample and perfect demonstration of the paralle We ay grive it an insertion hereafter in connection with
other problems.
S. W., of B.,
S. W., of B., is informed that we have first rate facilitics for furnishing drawings or engravings of
ncw inventions, at this office, at the lowest prices Free Papers.-lnventors and others nonsub cribers to whom we may send copies of this pape are respectfully solicited to become subscriber: aed to introduce the paper to others, where it may.
have a chance to tell its own story. Post Masters who receive copies, ace requested to splay then, and dispose of them to any persons ho will postage thereon.
ar readers will sibility of our accommodating a greater variety of sabjects a lhe sary is fact suspended for littl ries on chemistry is in act suspended for a lite,
while make room for the series on Galvanism, preparatory to the illustration of the principle and operation of the Magnetic Telegraph, and instruction in the
moulding.
Back Numbers. - As the demand for back numBers from the commencement, is extensive and in
creasiug, we shall re-print them in a few days, creasing, we shall re-print them in it few days,
supply all who may order them in due season.

6
Bcrnadotte, King ol Sweden, speaking of his own hat whenever he looked in the glass he was afraid Pliny relates that one of the Roman armies en The hydurgos now exlibiting in Boston lengt c same length, is supposed to be a twin brother to it The King of Prussia, at his own expense, has aused the printing of 17,000 copies of the Scrip tures fo
The Lowell Manulicturing Company have deciive storics high for the manulacture of Brussel and Ingrain carpets.
Lord Mansficld once remarked that he had en countered fraudulent debtors ; but that where he had hundred firaudulent creditors.
It is reported that a mechanic in Ohio has discov red a method of making church bells of steel, which are very
common bells.
The keeper of the Porlland observatory counted 265 vessels at anchor at one time in the harbor of
Portland, a few days since, besides those at the varve

The Mount Savage Iron Company are about erecting an additional rolling mill, and nearly a hundred ne
Some unlucky thief having stolen a quantity of ncollected bills from a Boston newspaper concern, tis propose
collect them.
From fifty to sixty thousand pounds of lead mine ral, worth $\$ 22$ per thousand, have been raised by eight min
business.
Upward of $1,000,000$ tons of coal, from the Schuylkill regions, have been shipped during the
past season, and preparations are making for a much arger business in future.
There are about 4000 United States troops, at jorpus Christi, Texas, with nothing to do but enalligators.
Another splendid steamer, 230 feet long, and called the Brother Jouathun, is to be finished this season.
The Zancsville Republican says that great speupposing that Uncle Sam will redeem it all,,-when he gets ready.
"I would give half my fortunc," said a wealthy an the other day, "could I perspire as that laborer

The Oregon River derived its name from oregaabundanily on its banks. The Territory has five organised counties and a population of 4,000 .
A western editor recently announced his intenman replicd 'and'tis yoursel' has a perfect right to do it ; lor the sleriff has often run for you.' The Dismal Swamp' is again on fire in the v ciuity of Deep, Creek, and the immense clouds of
smoke obscure the southern horizon, and render the here difficult of respiration

Boston is making the experiment of paving the strects with granite blocks. We have no doubt of
complete success if the blocks are diagonally ar-


Written ior the Scientific Amer
 thy way?
Canst thou at will return to to earth, then rise and soar away 1 would I were thy master, thou my obediens slave
PTd siar a way in ether- 1 d cross
he darkening wa Pd view old Rome, now languishing, rd visit Catthage site,
And bathe $m y$ hrow with glory, in sott Venitian light. Yet linger long I would not, but hasten on my way,
And trace the Nile up to its soucce beneatht he torrid


O'er Jubal Kumra's lofy, heights, my course 'ld then di-
 Descending oft to mingle with the sable tribes that rom,
'Mid boundess forests deep and dark, the Eltiop lion's home.
But these should not detain me long, and northward still But these should not detain me long, and northward still
arar
My rapid course should ouward be, till 'neath the polar My rapid course should onwara be, till 'reath the polar
I paused above the icebergs, where the needle downward
turned turned,
And the cause of its attraction, at the northern axis Isour globe a surface only,', 'eath which fires eternal play
Could I I with thee, my servant, throunh the centre make
 While the Aerial Navigator pride in every heart should

## The Mechaničs Saturday Night.

 My work is done, and here's the pay 'Twas hard to earn, but never mind it;Hope rear'd the sheaf, and peace shall bind
Six days Pve toild and now we meet
To share the welcome weekly treat,
Of toast and tea, of rest and joy,
Of toast and tea, of rest and joy,
Which, gained by labor, cannot cloy
Come ee, who form my dear freside-
My care, my comfort, and my pride ;
Come now, let us close the night,
Come now, let us clase the night,
In hammess talk, and fond delight
To-morrow's dawn brinss lessings, peace,
And each domestic joys inceass
To him who honestly maintains
That coursc of life which He ortains
 In Godds own hoos, our roices raise,
W.th grateful notes of prayer and praise.
Swect's that tranquilility ot heart,
Wlich public worship does impart; And sweel's the field, and sweet's the foa,
To him whose conscience bears Thus shall the day, as God designed, Thus shall the cay, as God designed,
Promote my heallh, improve my mind ; On Monday morning, free from pain,
Cheertill 1 Ill so to work azain. Our life is but a lengltened meek,
Through which we toi, for rest we seck,
And he whose labor well is payp

The Earth is Beautiful. The whole broad earth is be
TTomind satunel arish, And wheresoeer my feet are turned
A smie hat
nat The city with its bustling walk, A ramble by the river side,
A passing summer fluwer. The meadows green, the ocean swell,
The forest waving free, Are gitis of Gord, and speak in tones
Oit kindincoss to me.

## And oh, where'er my lot is cast, Whereecr my tootsteps roam,

## If those Ilove are near to me, That spot is still my home.

A Frenciaman's Boarders.-A play actor, applied for boarding at a house kept by a Frenchmn who having learned that the applicant was a play 'Inen, ina foi, you caunot lave de room. 'I'wo play actur have come board vis me two, five, seven
veek-den dey valk out, and be gar dea come back nevaire. My wile say never mind, de acteur mans
leave tree big trunk vich vill pay for de board; so leave tree big trunk vich vill pay for de board; so
we open de boxes, and de one have in him two pasteboard cap full of
gar was full of nosing

The want of Streets.-A friend of ours, who was recently in this city, complains of the difficulty
of migration from one place to another, in the lowe part of the city, for want of streets. We can as-
sure him, however, that there are streets in almost every direction, though they have been for some mud, that it is rather difficult to find them. We understand it to be the intention of our street commissioners, to have them all dug out next spring. Joining the Church.- William Bloomfield, an
old bacheler, got married, in old bacheler, got married, in lowa, to a pretty young
girl named Fliza Churcl. has known more happiness, he says, than he ever
did before-all of which he attributes to having did before-all of
joined the Church.
 gers has introduced an important invention for ren dering cotton duck for sails and tents, impervious
to water, mildew, or rot ; and for rendering all kinds to water, mildew, or rot ; and for rendering all kinds
of woollen cloths, water proof. The inventor is in
Werle Washington lor the purpose of efiecting contracts
will the Government, for supplying the army and avy with the use of the improvement.
Groundselss' Premunon Drill.-This is not the drill recently alluded to, for drilling militia compa-
nies; but is calculated for drilling and sowing a farner's field, in a style far superior to what can be This drill can be so regulated as to sow harrowing.
The This drill can be so regulated as to sow any given form depth in the earth. Mr. Groundsel, the inin Maryland, where they severally of these the approb tion of the farmers who use them.
A new Air Gun.-We have seen several noti ces of a genteel cane, invented in Philadelphia, and
constructed on the air-gun principle, in a manner to be discharged twenty times in quick succession, and throwing a ball with the accuracy of a rifle. But
we lave seen no description of any novelty in construction, different from what has beens in use
twenty years or more: nor do we think that the subtwenty years or more: nor do we think th
ject is one which should be encouraged.
New Mode of Stereoryping.-A method has been introduced of producing moulds for stereotypes, by soaking a piece of stout fine card-board
till it beconess soft and pliable, and placing it on the form of moveable type and beating it down with a hard brush till the letters are thorouglly indented.
It is then dried in that position by a gentle heat: and afterward, being removel and placed between two planished metallic plates, the melted metal
poured into the cavity formed by the types, and the poured plate is then formed with a great degree of perboard will give several impressions, and that the whole process requires only about one hour.
Sugar Making apparatub.-There is a report said to be from a privatc letter, that a gentleman in Weans of which the juice of the cane, particularly that prepared for the nimanufacture of the Muscovado sugar, may be ready puried, by a ser prior to the
the fecula from the sacharine matter, prest process of crystallization: and the lipuor being thus
clarified, is said to be reduced to a white and excellent sugar in a few minutes time. This invention
may be said to be "important if true," but we deenn it very possible that the story is a "new invention"
by the editor of the paper in which it first appeared. New Type-serting Machine.-'There is a re port that a machine for setting type has been put
successful operation in Licinum. There has bo reports of such an invention at various times and
places before; but the inventions have usually been a man should go to Vienna to see this wonderful piece or at New York.
it was Morse's Cerograpertic Mars.-Harper \& Brothers, are publishing a series of maps, in a style
surpassing in elegance and accuracy any thing of the kind in use. They are loned in numbs, each number containing four maps, beautifully colored,
and enclosed in elegantly embellished covers. These maps are superior to those which are ordinarily sold for 25 cents each ; yet the whole number, con-
taining four maps, is aftorded for $2 \overline{2}$ cents.-only
six cents each. Every lamily should be supplied six cents eeach. EEver
with the full series.
Exoeleent Black Ink.-There are thousands in this city who can appreciate the difference be-
tween a good, free and dense black ink, and the worn a good, free and dense black ink, and the
rally sold by orthless decoction which is notast generally sold by ordinary stationers; and will thank us
for informing them that Mr. Thaddeus Davids, 112 for informing them that Mr . Thaddeus Davids, 112
John st,, manufactures the article of superior quality, and which has been for several years used in
the offices of the several departments of governhe offices of the seve
ment, at Washington.
Improved Betidess.-Two excellent improve. ments in bridges have been recently invented-one
by Mr. G.W. Thayer, and the other by Mr. Lyman A. Gough, both of Springfield, Mass. Drawings and descriptions of both improvements may be seen
at this office, by those who are interested or curious on that subject. We shall probably procure and
sent engravings of one or both in a few days.
Intemperance.-Of 873 persons who have been imprisoned in the Cincinnati jail, willin the past
year, no less than 790 were of intemperate hahits. year, no less than 790 were of intemperate hahits.
Why will the State Governments permit this curse oo go at large. By the imprisoninent of 790 distil
lers and dealers, seven times 790 would be from prison saved.
Great Bagaing.-A Detroit paper gives a state ment concerning a family hy the name of Bagg, the members of which have received an aggregate
amount of $\$ 16,791$ during the present year, from $\left\lvert\, \begin{aligned} & \text { the public purse. They are probably among the } \\ & \text { mail-Bags. }\end{aligned}\right.$

FSine chavers of the Press.
 temporaries have drawn deeply ou our gratitude hy
liberal notices: : and although most ol the evide liberal notices: and although most of the eviden
ces of these favors, and enpecially the most compli nontary of these notices which had come into on
possession, have been destroyed by fire, we lave ye possession, have been destron left to remind us of our obligations to the
enough
generous American press: and by way of a law ledgment of these favors, we shall insert a licw co pies or extracthe om those which have heedn co-
ceived since the occurrence of thic fire, which dcprived us of the first class.
Scientific AmpacicnN.-This is a pupter ist
commenced by Mr. Ruflis Porter, and we ciroll its

 yet its participants may rest assured, that it will be
entirely free from all lincture and taste of alchol.
(Cataract, Worcester, Mass. Scientific American.-We have received the
Sth No. of the se vol. of a paper under the above
title. it is "the advocate of industry and enterprise, and jourual of meclianical and other improve-
mente." It is a neally executed and very interesting paper, embellishled with various drawings explana-
tory of important inventions. To that useful class
 this country and we lope and rustit will mect with
a liberal patronage.-(Cleveland Times.
The Scirntific American.-This is the title of
a new paper commenced in New York, devoted to scientific and mecthanical subjects, and the advocacy of industry and enterprise. It is particularly wor-
thy of the patronage of the farmer and mectlanic,
as it gives weekly four or five engravings of the laas it gives weekly four or five engravings of the la
test improvements in mechauism and agriculture
accompanied wits full accompanied with full descriptions of the same. II
is also an excellent family paper, and will be found
to possess interest for all the nembers of a fanuily.to possesssinterest for all
(Schuylerville Herald.
"Scientific American," published weekly in Nciv
York, Boston, .and Philadelphia, by Rufus Porter. Thise paper especially commends itself to Mectla-
nics and Manufacturers, as it not only contains general uotices of mechanical and scientificimpo impove
nents, but it also furuisches several illustratitive en-
gravings.-( Wasliinston Jourual, Portland. The "Scientific $\Lambda$ merican," published weekly by
Rutus Porter, New York, is seceived and lays upon Ror table. As its tillc purports, it is dcvoted to sci-
our
entific cubects comprising industry
mect and enterprize mechanical enn oflice ituprovemenis. It is conduct-
ed with great ability, and is one of the most useliu shleets for mechanies in the United States. Oul
mechanies wishing an catsienu paper, could not do
better than to

Scientipic Amiricican-- We have received the
first and sixth numbers of a new paper recently
first and sixth numbers of a new paper recently
started in New York city by Rufus Porter, favora-
bly known as once Editor of the New York Meclably known as once Editior oi the New York Meetha-
nie. The paper belore us is dissimilar in its ob
jects fiom the "Mechanic:" and the long and tho rough experience of the Editor is a sufficient guar-
antee that it will equal, if it does not excel, that re
putable Journal. The "Scientific American", is putable Journal. The "Scientific American" is
"the advocate of industry and enterprise, and jour-
nal of mechanical and other improvenculs." Every mechanic-every scientific man, every manulfactur-
er, artist, philosopher and tradesman in $\Lambda$ meric er, artist, philiosophler and tradesman in $\Lambda$ merici
should take this paper. - (Wisconsin Republican. "The Scientific American," is the tille of a uselul
weekly newspaper, publishled in New York. It is weekly newspaper, publishicd in New York.
useful to mechaniss and mautacturess especially,
being devoted to Scientific essays. illusirative of tlie being devoted to Scientific essays illasiative of the
principles of their various pursuits, accompanied
and it proves a inost useful paper; ; ;usd wo we are glad to
sce ulat politics, licrature, ayricullure, urd otler
 to have its principless semt alhwad in such a mamer
as to be within the reach of all meellathics.- (Bloomlale Herald.




 knowledge of maclinery, aud a more cxteusive ac-
quaintance with patents, han any man within our
knowledge.-( Wreath and Ciarland. The Scientific American is at weekly slieet, not
quite as sarge as our own, but ably couducted. It contains, in addition to the mos: interesting news on
passing events, generall notices of the progeres of passing events, geueral notices of the progress of
mechanical and other scientificimprovenicnts; Ame
rican and foreigu improvements and
 lustrative of the principles of the science of mecha-
nics, chemistry, and architecture; useful informa-
tion and instruction in various arts aud trades ; cutions, chemistry, and architecture; useful inforna-
rious philosophical ex experiouss arts and trades ; cu-
rint miscellaneous inrious philosophical experiments; miscellaneous in-
telligence, music and poetry. The seventh number
is before us, and if it te a specimen, it is well worthy of patronage.-(True Wesleyan.
Tue Scienrific Amencan.-We think it an
excellent paper, and its sulseribers here thiuk so, excollont paper, and its subsscribers shere think sis,
oo- and we lhav'n't a doubt that a yood nany more
would be of the sime opinion, if they received it. (Denocratic Pluaros.
The Williamsburgh Gazette fitly says, in copy-
ing our account of the fire of last Monday evening: ing our account of the fire of last Monday evening
"Among the sufferers by this couflagration is Ru fus Porter, the worthy editor aud proprietor of the
Scieutific American, one of the best papers for the
use of mechanics which has ever been publishthed in use of mechanics which has ever been published in
llis country. Mr. P. was not insured, and saved
nothin nothing except his mail-book. ''ype, materials, \&ec
were all destroyed. We hope hhat our operatives
will now step torward and will now step for ward and subscribe for the Scienti-
fic Anericalt, which is to be continued, and thus, at
least, aid tleiii unfortunate lrother. Independent of the satisfaction of doing good, the paper itself will
richly reward them for this att."-(N. Y. Tribunc. The Scientific American.-This excellent paper makes its appearance again alter an absence of
several weeks. It will be reoolitected that the office
 flames spread so rapilly that nothiug wist saved
firont the office but the mail books. No insurance.
But the enterprising publisher is on his le But the enterprising publisher is on his legs agaiu,
and we hope hee may have nore than additional paand we hop make up his loss. We believe this is
tronage ot journal in this country exclusively devoted
the only
to mechanics and manulactures, nald as Mr. Proter to mechanics and manufachilures, and as Mr. Porter
is himself a scientific meclani, he hannot fail to in
terest those of thesc two classes who are interested in the mechanic arts. We consider the Scientific
Americau worth preserving, and have placed it on
file.-(Washington Journal.










## on our exx clange lisit $\begin{gathered}\text { list } \\ \text { To } \\ \text { be oninumed. }\end{gathered}$

Scraps of Curious Intormation The atmospheric pressure on the surface of the
earth is tuar 151 p per square inch. pressure of water, is about seven ounces per square atmospheric air, are as lieavy as one cibic fool of water.-The bones of birds are hollow, and filled
with air instead of marrow.- The flea jumps 20 times its own leng th, equal to a quarter of a mile
tor a minn.-The Romans lay on couchess at tici dining tables on their left arms, eating with thei right.-The walls of Ninevelh were 10 feet higl
and thick enough for three chariots abreast.-Bahy Ion wass 60 miles within the walls, which were 76 feet thick and 300 feet high.-The earth is 7,916 of standing trees have heen discovered in Yorkshire, England, and Ireland, imbedded in stonc.-
man is taller in the morning by laalf' an inch than he is at night.-'The atoms composing a man are
supposed to be cllanged every forty days, and the boues in a few mouths.- Fossil remains on the Ohio
proves suat it the seat is of a blue color, it is deep water; when green shallow.-Book keeping, by double entry and
decimal arithmetic, wass invented iu 1501.-Pocket watteles were first introduced into England, from
Gernany in 1501 . The eolor of the mourning dress amongst the Chinese and Sianeses, is white; with the 'Turks blue and violet; Ethiopians gray ; Peruand Egyptians yellow.-The human body can be
brourght to endure a lieat of $¥ 80$ degrees of Falrenbrougln. to endure a lieat of 380 degrees of Faliren
heit. Thie experiment was tried successfully in Switzerlaud.-In the year 1510 a shower of stones
fell at Paudia, Italy. One of these stones weighed fell at Paudid, Italy. One of these stones weighed
120 pounds.
A box 24 iuches by 16 inches square, and 22 inches decp, will contain a barrel, or 10,752 cubi inches.--A A box 16 iuches by 168810 inches deep
 box 8 inches by $8-10$ inches syuare and 8 inch
 deep, will contain one lialf peck or 268 8-10 cubi $42-10$ inches deep, will contain one quart, or $67 \%-10$ cubic inclies.

## Interesting Experiments.

Place a pane of glass in a horizontal position, and alum : as the solution dries, it will rapidly clirystalize in small octohedrons, scarcely visible to the eye When this glass is held up between the observe
and the sun, or a candle, with the eye very near to the smooth sidle of the glass, there will be seen from beautiful haloes of light, at dinerent sile ap pears nearly white, while the larger or most distant will appear brilliantly coloured, in consequence of
the refiraction of the light, by a more inclined set of the refraction of the light
the faces of the crystals.

To Preparea Phila that will give Light in THE DARK. - Fill a tmall phial about one third foll
of olive oil ; add to this a piece of phosphorus equal to one tenth of the weiglt of the oil. Cork the phial
and wrap it in the paper to exclude the light, and and wrap it in the paper to exclude the light, an
set it, or suspend it in a warm place, but where th heat may not be equal to that of boiling water, till he phosphorons app the the the cork is started in the niglt, the phiall will evolve light enough to slow the hour on a watch.
You'LL BE TOO LATE.-The following sober and (O.) T'imes. We would caution our Eastern bach elor readers ayainst auticipation of successtill ap
plication, as there is a hundred to one that the chance will be taken up by some Western wigh, before an Eastern aye, aye, could reach the fair adA Husband Wanred-A A lady not yet turned or
forty well informed in all the duties of house wifery, forty, well informed in ail the duties of house wifery,
of good form, and wwithal good looking, full of vivachty, and possessing it kind disposition, withou
much weatth, but willing to work-would accept
an ofter of an offer of marriage from a gentleman of suitable
age, of good temper, kind-hearted and of industrious and temperate habits. For further particulars, in
quirc personally of tuc editor ol the Times.
Divorces in Connecticut.-The law of Coh necticut requires the court to grant divorces, where
either husband or wile are intemperate. Of course when a married couple wish to separate, they have
only to procure a keg of rum, and they can soon become duly qualified for a full rele se fiom hymen
$1\left[\frac{T}{3}\right.$ THE R. W. MECHANICS' MUTUAL PROTECTION, No. 11, meet every Wednesday
evening at their Hall, corner of Bleecker street and Cothage Place, at half past seven o'clock, r. m.
D.J. Benson, R. S. There are in New York city
and 239 omnibuses: total, 697 .


Rational Retrion
We liave written under this head before, and per haviour once aikiked the bigoted pharivees and their what is right!?" Which was evideully an appeal to hait power of reason, which every man who is honest at heart, is rapable of exercising. Chris-
tianity is ever ormsed to a blind superstitious faith, tianity is ever opmsed to a blind superstitious faith,
but always encourages, the reasoning faculties; the true taith being based on rational conclusions. favored and enlightened country, where the Scriptures of truth, with abundant evidence of their authenticity, and divine origin, are placed in the
hands or within the reach of every man, woman and child, the most prevalent and favorite custome are in many respects directly opposed to the princi-
ples, therein palpably and conspicuously inculcated ples, therein palpably and conspicuously inculcated ostensibly ignoraut, are not only indulged, but in and popular churches; while the mises of professed Cluristians blindly follow the blind leaders, withou ever searching the Scriptures tir themselves to "see
if those things aue so". or whether the leaders and churches are "sailing according to the chart."
The sentiment has beent industriously promul gated, and has gained credeuce to a lamentable ex mit, lhat no per:on is competent o understand th inspired writings, unless he has a collegiate educ in: but who doer not sec-or rather, who migh onjunction with the prevailing apathy on the part the masses, give to the eccleslastical leaders, consequently, whatever sentiment or principle does
not comport with the interest and popularity of thes onionort with the interest and popularity of these ruth or error. Hence we find it to be the case, unitormly aud unexceptionably, that wherever a
man takes the Sirriptures alone for his guide, disarding all traditionary and sectarian influence, and hempts the promulgation of the plain and simp rinciples of the gospel, he is as readily accused postor of the basest character, who pretends to have reeeived miraculous revelations in opposition to rank opposition of popular religion, against the $r a$ fional religion of the gospel, is even now, carried to
such an extent, that men are not unfrequently de vounced as rank fanatics, merely on account of thei being seen with the Bible in their pockets. We
wonld admonish tull to search the Scriptures; and to be cautious abput condemning those who with sincerily are endeavoring to follow the true light of
the Sircipturc revelation: for we esteem it to b We sripture revelation: for we esteem it to be
nore lonorable, or less reprehensible, for a man to Christian religgion, while acting in direct oppositio on the most ostensible, hrilliant, and excellent princ ples thereol:
Think on Eterniry.-I have frequently, afte semed to reign, been cheerel and exhilarated by poor negro on the wayside. Think on eternity said I to a poor black woman, the other day, jus
after I had visited the lamilies in C., and was almos prostrated in body and mind. I could only say as
I passed in sorrow, Tlink on eternity. She looked p ; a gleam of intelligence and a smile of spiritua beauty illumined her dark features, as the poor
African exclaimed, Yes, master, bless God I do. I caught the inspiration, and went on comforted anc strengthened.-L. H. Bale.

## inscription on a tombstone. <br> " I came in the morning-it was spring $\begin{gathered}\text { And I siled } \\ \text { I walked out at noon-it was summer : }\end{gathered}$ <br> I sat me down at even--lt was autum <br> nd I was sad; <br> Meeting of Congress

The first Session of the twenty-ninth Congress House oon, when Vice-President Dallas took the Chair, and called the body to order. Forty-three membe nswered to their names. met at he Clerk, when 21\% members answered to their names.
On motion of Mr. Hopkins, the House then pro. Davies of 1 The two houses adjourned at an early hour, afte appointing the ustal conmittees to wait on the
President, \&c. President Polk's message to the w Congress, reach this city at hall-past nine on Tuesday evening.

A Mother's De votion.-While a canal boat was laying at one of the piers at Allany a few days and a half old who was (Avory,) aboutworidently ell overboard between the boat and the dock, with out being observed by the men at work; but the Avory, who, will all a mother's impulsive offection, frgetting her own danger in that of her son, and Without waiting for other aid, plunged instantly into the river, and grallantly rescued lire , "rowning boy,
whom she held with one hand, while clinging to the whom she held with one hand, while clinging to the
dock with the other, until drawn out of her perilous


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and so perfectly constructed, that either a lady or genteman can at any moment enjoy a copiouss shower without
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ter sprinkled on the carpet or floor. And by a slight the aid of servants, and withodt haviug a drop of the wa-
ter sprinkled on the carpet or floor. And by a slight
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