##  

NEW AND IMPORTANT ARRANGEMENT The rapid growth of our Palent Agency Business, dion to our ordinary facilities for its performance, and we are now able to announce the completion of a systen business of this kind to transact.
odr principal offioz
will be, as usual, at No. 128 Fulton street, New York
There is no other city in the Union so easy of acce from every quarter as this, consequently there a greater advantages in regard to the transmission of mo-
dels, funds, \&c, through the various channels that center in Nere, and during the hours of business are firm reside hand to counsel and advise with inventors. They are assisted by a corps of skillful Examiners, who have had cases for the Patent $C$ fifice.
To render our Patent Agency Department complete in
branch office in the city of washington, on the corner of F and Seventh streets, opposite the
United States Patent Office. This office is under the general care of one of the firm, assisted by ex.
perienced Examiners. The Branch Office is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office
to all such cases asmay require it. Inventors and others who may visit Washington having business at the Paten
Office are cordially invited to call atour office. flico $\triangle$
$\triangle$ SPECIAL REQUEST.
Our facilities for the speedy preparation of cases pre-
vious to the application for the patent being vious to the application for the patent being much more
extensive in New York than at Washington, we especially require that all letters, mod
should be made to our address here.
examination of intentions.
We have been accustomed from the commencement of
our business-twelve years since-to examine sketche and descriptions, and yive adrice in regard to the novelty
of new inventinns, without charge. We also furnish a printed circular of information to all who may wish it, giving instructions as to the proper method which should
adopted in making applications. This practice w shall still continue, andit is our purpose at all times to
give such advice freely and candidly to all who apply to 1. In no case will we advise ann inventor to make appti-
cation .unloss we
the Patent Osfce.
Our extensive experience in mechanical and chemical improvements enables us to decide adversily to nearly
one half of the cases presented to us for our opinion, be. case for a patent.
When doubt exists in regard to the novelty of an in
preliminaty examination
0 be made at the Patent Office. We are prepared to
conduct such examinations at the Patent Office through our "Branch Agency," upon being furnished with a
aketch and discription of the improvement. Our fee for sketch and discription of the improvement. Our fee for
thin service wiil be $\$ 5$. Afer sufcientexperience under chationary step in al cases before application is made for a patent-not that
there will be no rejections under the system It is impossible to avoid such results in many cases, owing to the exceedingly wide range taken by the Examiners in the
examination of cases; but, nevertheless, many applicant will be saved the expense of an application by adopting this course. Applicants who expect answers by mail
must enclose stamps to pay return postage. The Costs attending an applioation for a Patent through our A gency are very moderate, and
great care is exercised in their preparation. No casea are lost for want of care on our part in drawing up th papers, and if the claims are rejected, we enter upon a
speedy examination of the reasons assigned by the Commissioner of Patents for the refusal, and malke a report
to our clients as to the prospects of success by further prosecution.
$\mathbf{A}$ circular containing fuller information respecting the
method of applying for Patents can be had gratis method of applying

REJEOTED $\triangle$ PPLICATIONS
We are prepared to undertake the investigation and
prosecution of rejected cases, on reasonable terms. Th close proximity of our Washington Agency to the Paten Office affords us rare opportunities for the examination and comparison of references, models, drawings, docu-
ments, \& . Our succem in the proescution of rjected
. cases has been very great. The principal portion of ou
charge is generally left dependentupon the nal result. All persons having rejected cases which they desire to
have prosecuted are invited to correspond with us on the have prosecuted are invited to correspond with us on the
subject, giving a brief history of their case, enclosing the officlal letters, \&

## formign patents.

We are very extensively engaged in the preparation
and securing of Patents in the various European countries. For the transaction of this business we have offices at Nos. 66 Chancery Lane, London ; 29 Boulevard Saint
Martin, Parin, and 3 Rue Therraienne, Brusels. Wi Martin, Parin, and 3 Rue Therrionne, Brussels. We
think we may safely say that three-fourths of all the
European Patenta securedto American citizens are procured through our agency.
Inventors will do well to bear in mind that the English
law does not limit te isure law does not limit tbe issue of Patents to inventors. An one can take a Patent there.
Grrculare of information
 PATENT AGENCY, No. 228 Fulton street.
MUNN \& COMPANY, Proprietors.
[Reported officially itr the Scientific American.] LIST OF PATENT CLAIMS
Issued from the Onited Etates Patent Oflce for the wilik ending may 19, 1857.



 the pulleystoropll on, s, is is elantatic, and forme a track to
the purpose set forth. Portrouros-Robert Arthur, of Philadelphia, Pa.d
om aware that a letter file is made of a broad band o
 bond passing entirorly around thene. or fanataned cord ore
board, the papers being put in at one end by drawing the

 board apart.
am am alar that an elastic clasp for pocket books,
and probably other articles, has been made : these I Idis. In claim, first, A portfolio made with an elastic back o

 I do ot cotaim the application of wings to a projectile
whether sid wings le station ary or movable.
 I alho chaim the improvement of making aaid tube, C,
with an enircling chamber or recesiong arranged sub
stantilly in the manner and for the purpose set forth.


 aneously of any dosired thicknoess or width within
the compaspo of the machine substantially in the manner
and for the purposes set forth HAND TRUCK-ZeButt, of Lincolnton, N.C.: I claim
he manner degcribe oft, constructing, arranging. comm
hning, and operating the dumping truck, or any other
manner or method osentially

 Alcted and arranged that the dogging bars are clamped
rumly to



 the.. dipping boeanding and discharging the matches from from being constructed and
therating specifically has set forth.






 [Straw braid, according to the common practice, it stretched by the fingers while being sewed together, to
form hats. This involves the loss of considerable time and besides the necessary bevel is not thus given to the
braid. The method embraced in the foregoing claim for eating straw braid, gives it the necessary bevel and cility and regularity, producing thereby handsomer straw


[By placing the centers of motion of the keys in the poition stated, the jack acts more directly and more forci of its movement. By this arrangement the hammer is checked in a higher position, thereby admitting of a checked in a




 Vrourss-Bradley. Fitts, of Charlton, Mass.
, I claime he sounding-board of a violin, or other stringed musical
intrument, substantially as and for the purpose set
forth.
[The bells thus placed behind the sounding. board of a
atringed instrument vibrate in harmony with the strings, and thus pro
of sounds]



##  <br> (The top of the picker staff requires to move paralled

 with the shuttie, in order to throw the latter in a straigaine across the race-way. Many devices have been emm ployed (and some of them very complicated) to effec his object. The above p
y very simple devices.]


 own, for the purpose set forth.
[The blast spout, the screen, and the scouring box con-
aining rubbing stones and rotating beaters, anged in this machine as to clean grain in a most perfec maner, and alitrady for ming

 [With this machine any person capable of turning a crank can redress the lands and furrows of a millstone
in a very accurate and expeditious manner. The novelty in a very accurate and expeditious manner. The novelty
or in vention consists of a number of picks guided and fed back and forth from eye to circumference of the stone he chisel liability of their being troken, owing to their high team-
per and ocncusion with stone, is completely avoided.]


 combration ,
said parts are onocructered and and arranged to operate in re.
lation to each other, as described.

 So cond. We claim raising and lowering the end of the
siliding arm, a, at its connection with the vibrating le ver,




 the zinc entered in the incision made by the cutters, sub-
stantially
Sixth described. We claim the application of the

 the insision in both stides of the washboard at the aame
time. and allo to facilitat the ontrance of the rin into
both sties at the same time, substantially as set forth.




 places whero the contraction and erpansion demand ac.
commodition, subtantiall ags set forth, or any mechani-
cal device equivalent thereto.

 rections-the frietion wheols haring their journale sup.
portiod by a gries of embracing rings which thus form
their roling tearings, in the manner described Drissing Sxwing Thriad, \&o-J. D. Minder, of
Killingly, Con.: Ido not claim the employment of re:



Rether
bed.
[Thi
[This manner of arranging and operating brushes for
dressing thread and yarn anter it in sized, is designed to obviate the use of a blower for this purpose, and to nish volvingbrughes.]




[This ingenious method of raising water is specially in ended tor mines. The water is elevated through several chambers having valves, and placed at certain distances
above one another. Two sets of conducting pipes and
chambers chambers are emploged, whereby a coninu.]
of water is discharged at the top of the mine.]


 remain parallel to each other while the vehicle is hurn
ing disclaim projecting the brace levers backwards and
in
 more limited range of motion, and gi pog lesa control over
the wheols whon tring and rateate irregurait in
their motion, and increased strain upon the tongue.


 and the plane or berrings surfaces, min, the same being
appliad to the spinde and valion and made to operate
together, essentiall in manner as applained.


 arm. F. atathed to the e
with the pall, E, and ca
for the purpose set forth
Inn this lifing jack therd is an extension bar attached a a lever in such a manner that the jack can be ruadily ing up the standard, as required in oparating the common jacks. By an arrangement of a sector with the lifing bars and chains, a nearly equal power is applied to the lifing bars at all points of their movement_a good im


 bors in various ways, for the purpose of allowing the aaw
o have lateral movement or play, and $I$ there ior do do not claim auch movement in the abstract, or irrespective
of the peculiar arrangement of the parta shown and de.
scribed.





[It is posit vely necessary for corract sawing that the saw arbor should have some end play. The devices em
braced in this claim provide for the proper lateral play of the saw arbor, and for bringing it back to its proper ach cut.]


 Bur to the best of my knowledge and bellief it io new
to have tencil plate made in the form of an endieat
ond and
Iclesim belt, H, as and for the purposes bet forth. [This method of forming the stencil printing plates in
ne continuous apron, gives to them something of the character of rotary printing presses. thus rendering them
more rapid in operating, and capable of being driven by team power. Stencil printing is now all performed by
hand labor.]
 ades to blinds, consisting essentially of the gliding diea






Prinfirg in Conore-Wm. Croome, of Brooklyn, N
I claim the movable tablets for the separate colors in combinaimion withthe gulded roller, or equivalentitur
face. for taking up the ink, operating eutatantially ai
described.


 to operate in relation to ea.
for the purposes set forth.


 spectiad.








 utomatically yast doscribed.
In this shingle machine saws are fitted in a frame attached to the gate of the riving knif., and they are
oporated automatically to cut a kerfin the bution of each shingle so as to prevent it from checking as it is rive from the bolt. The knife which rives the shingles is so
connected with the bolt feed motion that the latter perates automatically by the reciprocating knife gate.




 paper are passed on tapes or theire equ
touching or dragsing theron as peciciea

Srover
Stica, N. Y . Chunns, Egg beaters, \&c.-J. S. Gallaher, Jr., of
Washington, D. C.

## Pennsylvanla Mechanica.

The mechanics of Lancaster, Pa., have ately given an entertainment to old Martin Shreiner, (ninety years of age,) of that place much respected mechanic and fire engine builder. J. F. Reigart, Esq., made an elo quent speech on the occasion. Lancaster ha produced quite a number of ingenious and skillful mechanics. In 1776 the first American auger was made in that place by William Henry; Abraham Witmer, of that place, built the first large stone bridge in the United States in 1790, and it yet stands a monumen of good masonry.

## Meses Railroad Farms.

Messers. Editors-Returning recently from Washington to Baltimore, I took my seat in the last car. It was a warm afternoon, and there were five cars between the one I was in and the tender. In a half hour after starting the dust began to fill the car, and it finally became so thick that it was with difficulty could recognize passengers across it; it became so oppressive that I was obliged to leave, and go forward into the next car ; in it the dust was not so thick, in the one before it there was still less, and in the car second from the tender there was not enough to make it unpleas ant. But in getting rid of the dust I was obliged to increase the risk of damage, in case of accident, by getting nearer to the locomotive. This state of things led me to reflect over the matter for a remedy; and wish to propose to the railroad compani
through the country the following plan :-
I believe the width of the roadway belonging to railroad companies generally is sixty feet, consequently, every 726 feet in length o road gives an acre of ground, less the width of the rails, which is immaterial ; or we wil say that every mile of roadway contans, say seven acres of land; or, in other words, the 25,000 miles of railroad in the United States contain within their roadway 175,000 acres of land, making 3,571 farms of 49 acres each. Now suppose our railroad companies should put up houses at every 7 miles along the line of he road, and employ a farmer for each, whose duty it shall be to put this soil into proper order, and sow it down in timothy. The extremes of each farm would be but 3 1-2 miles from the dwelling, it being placed in the middle, so that it would not be too long a distance for him to walk to take care of it. When he was not employed in farming he could be employed in the duties of leveling, or repairing the roadway, or anything else the company might have for him to do. In many
places railroads have a running stream along the roadway, and by managing this stream so as to afford irrigation to the whole roadway, a crop of at least $21-2$ tuns of hay ought to be raised per acre. The sloping sides of embankments and cuts should be sown with orchard grass, which would not require mowing, and the tillable parts with timotby. Supposing that three-fourths of the roadway
only should be tillable, and that it should ield two tuns of hay only per acre, we have as the product 262,500 tuns of hay, worth at least $\$ 10$ per tun, or the handsome sum of $\$ 2,625,000$ as the annual agricultural produce of the now useless, idle roadways. A competent person as a farmer could be employed at say, $\$ 300$ per year, and the hay crop raised by him would bring $\$ 720$; thus, besides the value of his services along the line of the road, the companies would receive a revenue of $\$ 420$ for each farm, less the cost of seed and manure. The facilities of taking manure to the sterile portions of the road, and of transporting the hay to market would not be felt in the daily transactions of road transportation, as advantage could be taken of light trains to carry it. The most important advantage, however, is yet to be mentioned. The roadway being covered with grass, all except the rails, there would be no dust to suffocate passengers, the rails would wear longer, and also the wheels and axles, and last, but not least, persons would not be obliged, whilst traveling, to go from a comparatively safe to an unsafe position, in order to breathe.
Having thus sketched the outlines which I wish to bring, through the medium of your wide-spread journal, up to the view of railroad companies generally, let us see which Board of Directors shall be the first to act, if not for their own, at least for the good of the traveling public. James H. Stimpson.

## Baltimore, May, 1857.

[The views of our correspondent deserve attention, not so much as they relate to the profits pointed out as derivable from the hay that may be raised on the farms, as the specific means described for preventing dust on railroads. We have heard of some railroads having been laid with sods to prevent dust, but have not been informed with what results. Persons appointed to take care of the farms could also act the part of guards, and would
be very useful in many ways for the protecion of the track from the intrusion of animals, \&c. The presence of grass on the slopng sides would also do much to preserve the earth from being washed down by the action of rains-an evil very severely felt, especially in such loose alluvial soils as that referred to between Baltimore and Washington.

## Post Office Remittances.

Messas. Editors-I have long felt the want, mmon I presume to almost everybody, of ome easy method of making remittances for newspapers in different parts of the country, and I think the want might very easily be supplied hrough the Post Office in this way: Let the Postmaster General issue to the various Postmasters check-books suitable for the purpose, and each Postmaster be authorized to draw upon any Postmaster in the United States for the purpose intended to be accomplished, making it payable to the publishers of the paper which is to be obtained. The mount which would thus be paid to any one Postmaster would be too small to merit any apprehension of loss from embezzlement, and besides, one office would always be a check upon the other.
Don't you think the plan a good one, and quite capable of being carried out? If so, I know of no paper so likely to cause attention o be directed to it as yours.

Jas. P. McKinney.
Austin, Texas, May, 1857.
[The plan which our correspondent suggests or remitting drafts for small sums through the Post Office could be carried out without any difficulty, but it would require an mendment of our Post Office law for the purpose. The Money Order system, which is carried out so efficiently in Great Britain, and with such manifest advantages to all classes, besides yielding to the Post Office department an immense income, has been frequently brought under the notice of our Government. Whenever our people squeeze up their Representatives in Congress to make a law for carrying out such a useful reform in our Post Office system, it will be done. This affords us a favorable opportunity of recommending the attention of our correspondent and all concerned to the articles on this subject, pages 229 and 234 of this volume.

## aple Bugar Reglons.

Messrs. Editors-I observed a paragraph in the Scientifio American of May 23d, on the subject of maple sugar, in which you allude to having received a keg of superior quality from John Oliphant, Esq., of Cumberland co., Md., and remark that you were not aware it could be produced "so far south." I have seen the article (of good quality) manufactured in Alabama; it is quite common in the Southern States for the negroes to make it for their own use. I am satisfied it can be made in any State in the Union where the maple grows, the only difference being in the season or time when the sap begins to flow, which is during the months of January and February in the Southern States, and as early as December. Cold cloudy weather checks the flow, and if the temperature falls to $32^{\circ}$ it ceases entirely, but resumes it as soon as the weather is warm enough to thaw. The season of white frosts and warm, clear sunshine is the proper time for making maple sugar. The sap will flow until the leaves begin to put out; but the syrup will not crystalize from sap procured late in the season, although it will make good molasses. I have assisted when a boy in the sugar camp, and know from experience what I have stated
to be correct.
A. F. Ward.

## Violins.

Messes. Editors-Why is it that violins cannot be made now that will sound as well as the Cremonians? Was there any secret art used in their construction which is not known now? Would not a violin made of the same kind of timber as the Cremona, and all its parts constructed exactly similar (which, suppose, could be done by a skillful workman) not sound like the Cremona?
Avon, N. Y., May, 1857. S. W.
[We cannot answer a single question of our correspondent. We have heard the same
statements from others respecting the supe-
riority of the Cremona violins, and the opinion is common that no such instruments can now be made. This, however, may be wrong. Perhaps there are better violins made at the present day than were ever made at Cremona, in Italy, in the last century, from which cir cumstance they have derived their name. Some of our correspondents may be able to give us positive information on this musical subject.

A Great Discovery-The Phllosonher's Btone.
Those which men in the "olden time" considered to be beautiful dreams have become realities in our day. Diamonds bave been imitated, but with less perfection than pearls, therefore the natural ones are still without rivals. The German chemist Woehler, of Gottingen, however, has succeeded in giving to the world a gem which compares most favorably with the natural diamond. This is -"Bor," the elementary substance of boric acid. Heretofore no chemical means had been found capable of reducing it to its natural state. This new substance-Bor-is equal to the diamond in resisting chemical agents, and is even harder. Mr. Woehler anticipates that means will yet be found to make it colorless, its prevailing tints being reddish and yellow. In connection with M. Deville, Woehler made the discovery of reducing aluminum from its oxyd to a metal ; this new discovery in reducing boric acid and extra cting Bor, increases his celebrity.
L. R. Breisace.

## Tripliclity of the Year 1857

The following are some curiosities of the figure 3, in relation to the figures of the present year :-
First, add all the figures and divide the sum obtained by the last in the year $-1+8+5+7$ $=21+7=3$. Second, add the second and fourth figures, and divide the sun by the third- $8+7=15+5=3$. Third, add the se cond and fourth, then subtract therefrom th sums of the first and third, $(8+7)$ -
$(1+5)$, and the quotient will be 9 -the se$(1+5)$, and the quotient will be 9 -the second power of 3 . Fourth, multiply the first and second figures, $1 \times 8$, and subtract this sam from $5 \times 7=35$-the quotient is 27 , the third power of 3 .
For duplicity we must look forward to the year 1861 , which by the mere addition of all its figures, gives the fourth power of 2 (16)
L. R. Breisaon.

## Volcanoes.

Volcanoes sometimes transact business on quite a large scale. Mount Etna, we think it was, at one eruption vomited lava to an amount fifteen times greater than the whole mountain. The discovery of volcanoes in the central portion of China goes far to disprove that a communication with the sea is essential to their formation.

## Chair for the President.

The San Francisco Herald notices the arrival in that city of Seth Kinman, a hunter from the nortbern part of Humboldt county en route to Washington, with a great curiosity in the shape of a chair made entirely of elk antlers, and designed as a present to Mr. Buchanan. The chair is very ingeniously and handsomely put together.

## The New York Free Exhibition.

We have tried several times to visit the "Hall of Patents" in this city, alluded to some time ago as an experimental concern, intending to exhibit inventions at an annual rent for the space occupied, but can never find it open. It was to have been opened on the 4th of May. What is the matter?

Experiments have proved the interesting act that fine silver exposed to the air in a state of fusion absorbs oxygen gas, and gives it out again in the act of consolidation. The guantity of oxygen thus absorbed may amount to twenty-two times the volume of the silver.

The Elizabethtown (N. J.) Tribune states hat a pearl has been found by W. Cree, of that place, which is as large as a walnut, and of an oval form. It is perfectly white,
the largest Jersey pearl yet discovered.

