New Self－Centering and Self－Releaslng Lathe，
Mr．Thomas R．Bailey，of Lockport，N．Y．， has made a very valusble improvement in lathes for concentric toraing，such as for broom handles，\＆c．，for which measures have been taken to secure a patent．The live spindle has a sliding cone mouth，into which the rough material must be placed，and the slide spindle has also a cone mouth in a line with the oth－ er．The rough material is placed within these cone mouths，and must be centered，as the sindles al ways bear a fixedrelation to one ano－ ther，and the cone mouths guide the rough matarisl to lie in a true central line with both apindles．When the slide has run its length， it atrikes a cam upon the frame，and the broom handle，or whatever it may be that is turned， is thrown out from the spindles，and drops down．The turning tool can be guided by a fised side pattern to turn out many different irregular forms．This lathe is easily attended and is very simple．It is a good，new，and useful improvement．

Improvement on Spike Machine
Mr．James H．Swett，of Concord，N．H．，has invented a valuable improvement on a machine for making spikes，and for which he has taken measures to secure a patent．Mr．Swett has a patent for hie machine already，and this is for su improvement on it．The feeding rolls of bis machine are the same as those heretofore used，but the holding of the spike to form the head，is new．He brings down a weight upon the epike pressing it upon the die block，while the header comes forward horizontally and forms the head．A pair of nippers moved by cams，wort in unieon with the header，for sei－ zing each spike when formed，bringing it for－ ward from the die，and dropping it in an instant， when it is about to return for a new spike． The practical working of the improvement，as stated by Mr．Swett，is much superior to the old plan．

Improvement in Cardiag Cyliaders． Mr．Jamee Greaves，of Baldwineville，On－ ondaga Co．，N．Y．，has made an improvement in the construction of rollers for picking wool， whereby they are made cheaper than hereto－ fore．He runs a composition of lead and zinc around an iron roller of suitable size to about if inches in thickness．After this，punched sheet iron is wrapped around the whole，and stool wires are driven into the holes with a bossing punch．The wire can be sharpened before being driven in by this method．The teeth may be perfectly pointed with a file after being driven in．

Circular to Inventors and Patente A circular has been published in the Wash－ ington pa pers，wherein it is stated that an as－ sociation has recently been formed in the city of Washington，composed of gentlemen resi－ ding in diferent parts of the Union，for the purposeofeffecting，by an enlarged and compre－ hensive syatem of action，the interchange among nations of the productions of the in－ ventive genius of the world．If their views meet with the approbation of inventors，the circular says they will send a delegation to the World＇s Fair，to exert an influence for the sale of American inventions in Europe．To carry out the designs of the association，it 18 sary out that means are required，and those who would avail themselves of its advantages ＂should pay over a reasonable sum in ad vance＂to the treasurer，B．B．French ：R．J． Walker is President，and Marcy，Dallas，Rusk， Burke，Ashman，A．W．Thompson，Stanton， and Mason（famous names）are subscribed to it．If real inventors would form a society and stick to it，their power would soon bo felt． From the want of mutusl co－operation bo fert． lieve they have suffered more than anything olec．If the above essociation be well man－ agod，it may do much good．

New Slate Matorial．
A new material，called enamellod slate，has lately heen introduced into England．It goea through a number of processes，and is burnod at a high temperataro．It takee a beautiful
polish．A great number of the paintinge fo steamboats，in Britain，are done upon slate The paintings in the cabin of the Philadelphis steam propeller＂City．of Glasgow，＂are all done upon slate．They never crack，chip，or stain，and they can be washed with soap and water without any danger of spoiling．
The Bill for Reforming the Patent Laws． A correspondent from Washington，writing to us，states he has been informed if Mr．Tur－ ney＇s Bill pasees the Senate it will also pase the House．The strong feelings of all inven－ tors are against it，he says，and it will be deci－ dedly injurious to their interests．The Bill does not suit us in many respecta，especially the scire facias clause．We have stated this before．Let it be altered．We see that a great number of petitions have been presented against the Bill．Mr．Seward presented a number stated to be from inventors，last Mon－ day．It would be some aatisfaction to know whether they pere inventors or not，llkewise whether the otho petitions are signed，as sta－ ted by inventors or pot．The Bill of Mr．Tur－ ney，now before the Senate，was the result of the deliberations of a body of men，named＂A Convention of Inventors．＂It was held in Baltimore in 1849．We have the names of the leading men who composed it．We will seep a keen eye upon all the results that may be developed by the present agitation about the Patent Laws．


This improvement is theinvention of Messis． John Lamb and Charles H．Root，of McDo－ ough，Chenango Co．，N．Y．，and for which a patent was granted on the first day of this year，1851．Fig． 1 is an elevation．Fig． 2 is an edge view of the axle box．Fig． 3 is a ransverse section of the hub．Fig． 4 is side section of a spoke．The same letters refer to like parts．
A $A$ is the outside rim of the wheel which made of cast or wrought steel，forming two hoops，the one outside of the other．B B are the apokes made of flat steel and divided near their extremities into two parte，which parts are curved as exhibited in fig． 1 ，and secured to the rim by bolts or rivets；near the inner oxtremity of each spoke is a notch，$c$ ，as shown in fig．4；this notoh embraces an annular projection，$d$ ，fig． 3 ； D is the hub which part－ ly serves to keep the spokes in their places；；the extremity of the spokes butt against the axle bor ate e，fig． 2 ；the hub， D ，is of metal with groves or slots，$f f$ ，in it，through which the apokes and the annular ring pase，$F$ ，figure 1 ，is the axle box，the part $g$ ，passing through the central opening $h$ ，of the hub，D．The Fig． 2.

axle is of the form of a round pipe，having around it a plate， $2 \quad 2$ ，which covers one side of the hub，entering within it，and having projec－ tions fromits circumference at $l l$ ，which fill up the speces，$f f$ ，in the hub slots，left by the spokes，and thus serve to hold or retain the spokes in their places ；$m$, fig． 2 is a projacting
ring cast with the axle box，$E$ ，and butting up againat the inside face of the hub，and having
notches as at $e e$ ，which are of the rame num－
ber as the spokes．These notches lap on the ends of the spokes；$n n$ ，are bolts for holdin the hub and axle box together ；F，fig．1，is the axle opening．
As the＇wheel revolves，the pressure or weight of the vehicle is sustained on the rim spokes which have theirbearinge againat the annular ring of the hub and the arle box，and as the apokes are flat，divided，curved and made of steel，an elastic gentle motion is given to the carriage when journeying over uneven ground．Strength and lightness are also com bined in the wheel．

## Fig． 3.



The claim is＂the construction of the spokes of flat ateel，aplit or divided and curved and secured to the rim as represented in fig．1．＂ More information may be obtained by lette addressed to the patentee．

Music by Steam．
Mr．Wm．Hoyt，of Dupont，Indiana，has in Mr．Wm．Hoyt，of Dupont，Indiana，has in－
vented the following plan for making music on a steamboat ：
Place a pipe horizontally across the boilers， of such length and size as may be proper both ends of said pipe to be stopped tight；in or near the centre，there must be a connection pipe to let the steam out of the boilers into said horizontal pipe．On top of said pipe， there must be placed seven or more small pipes，perpendicular，of such a height as may suit the operator；on top of asid amall pipes， place whistles，of different size日 and tones，si－ milar to those used on locomotives and steam． boats．Said whistlea to be so made that the top part will screw down or up，so as to regu－ late the sounds，while tuning them at any convenient part of the boat；place a set of keys to operate on said whistles，to let on and off the steam by means of pressing down those keys similar to playing on a piano；or there can be a cylinder so arranged as to operate on the whistles by turning a crank similar to a hand organ．
Mr．Hoyt says，＂I am astisfiod that music can be made by steam on a boat or locomo－ tive，as well as it can be played with brase in－ strumenta，and much cheaper，much louder， and without any lose of steam，as there is always a surplus whilst landing，whilst at the wharf，and when leaving．It is my candid opinion that the Western boys will hear＂Old Dan Tucker，＂＂Auld Lang Syne，＂\＆c．：play－ ed on the Western waters，by steam，at a dis－ tance of ten miles＂
This is going music with a rush，and when perfected will astonish Barnum and Jenny Lind．

## Rallroad New Inventions

Last winter，the Legislature of Virginia ap． propriated $\$ 10,000$ to test the invention of J ． French，of Old Point Comfort，in an improve－ ment on locomotives for ascending steep grades，and on Saturday two weeks ago，as we learn by the Richmond Enquirer，the first ex－ periment wes made．Mr．French expended a large sum in arranging a locomotive and car for the purpose，and for laying down a rail－ way on the opposite side of the river，a mile above Richmond．On this railway the road， as constructed by Mr．French，is more than a third of a mile in length，on a grade of 200 feet to the mile．The ends of the sills are cut off square with the string pieces；the rail，six inches wide and three fourthe of an inch thick， is placed upon the string pieces，and extends ortwards two and a half inches，thus affording an under－surface，against which a pair of rol－ lers（the simple principle of the whole inven－ tion）are pressed．These rollers or wheels are suspended from the engine，a little in advance surpended from the engine，a little in advance
the extended rail by a lever，by the regulation of which any amount of adhesion may be obtained．
The engine used for the experiment was only $3 \frac{1}{2}$ tons，and was built by Messrs．Hoge and Delamatar，of this city，under the super intendance of Captain John Errickson，a gen tleman well known for his great mechanica talents．Up thiy grade of 200 fest，this little engine drew a passenger car filled with about 100 passengers，at a velocity of about ten miles an hour．On descending，both engine and car were perfectly under control，capable of being stopped at any moment in a space of ten feet，and this while descending by steam power and the force of gravity combined

Expose of Paine＇s Light．
Messrs．Editors－Under this caption I read your remarks on Mr．Dixon＇s experiments and I am really astonished that you should permit so barefaced an imposition on the pub－ lic to find any countenance from your journal For so much a ticket，Mr．Dixon agreed with the public to show them how Mr．Paine made his light；this he utterly failed to do．All de－ scriptions of Paine＇s apparatus describe the water as not acidulated．Dr．Nicholl＇s apeak of acidulated water in connection with the experiments with the Grove battery．Besides this，Mr．Paint＇s electrodes were taken to pie－ ces in the presence of Dr．Channing，of Bos－ ton，Dr．Doremus and President Young，of the Manhattan Gas Co．，in your city，and nume－ rous other persons，all of whom are capable of judging whether they were batteries or not， and every visitor has，at all times，heen both permited to taste and carry away the wate in which the electrodes are immersed．Mr Diron，therefore，failed in his promise to the public，as regards his remark that if＂Mr． Paine＇s diacovery was true we had to unlearn all we had learned，＂it would apply with the same force to Mr．Paine＇s process of catalysia （which he also failed to show），but which，in spite of all that chemists have learned to be impossible about it，has bean fully substan tiated by chemists．But I would inform Mr． Dixon that an unlearned cuemist，by thename of Humphrey Davy asid that＂water would yet be found to be the ponderable basis of the ases，＂that many able and eminent chemist ave hold water to be a simple．
Trusting that you will do a simple act of justice，in publishing this article，I am yours

## P．M．H．

Washington，Feb．10， 1851.
Messrs．Editors－In your complimentary notice of eeveral of my architectural works， published in the Scientific American of the 8th inst．，I notice an error which I desire to have corrected．I was never Chief Clerk of the Patent Office．My father，William Elliot，held that important office about thirteen years． merely performed the duties of Draughteman and Clerk under him．Thanking you for your kind notico of me，and desiring you to make this correction in your next number，I remain yours，\＆c．， Wm．P．Elinot．

## New Type Setting Machine．

A Parisian inventor thinks he has at last discovered the long－sought desideratum，a machine for setting type．He has been at work upon it for fifteen years，and having completed it，has entered it for exhibition at the World＇s Fair．It comprises both a distri－ butor and setting stick；it is afforded at a low price，and will set ten thousand ems an hour It is said not to interfere with the regular ap pointments of a printing office，and requires no new characters．

Singnlar Remedy for Choler
We clip the following from one of our Cali ornis exchanges ：－
＂The cholera had appeared among the In－ dians who have a village opposite Nicolaus The Indians have a singular mode of treat－ ment for this disease．When the subject is taken ill，several of them carry him down to the river and immerse him，leaving him there until he can bear it no longer，when they tak him out and place him in the sulu．The ope ration is repeated until the person dies or re－ covers．

