## Htierthlupump．

Correspondence of the Scientific American．
Washington City，Dec．1st， 1849 Within the past few days this city has bee transformed，as it were by magic，from compa－ rative quiet to a state of the most intense ex－ ciement．Politicians of every grade and de－ scription are rapidly congregating at the great political arena，all wanting something，which they are determined to obtain if perseverance and importunity upon the high pressure sys－ tem can avail．From the present time to the close of the Session，stagnation will be un－ known．But in this age of steam and electri－ city it will not do to stand still．Motion，ac－ tion，progress－are the words which now fill the whole world with their stirring demands， making humanity＇s heart pulsate with a stronger bound．There is now something for all to do．The world is becoming wider in magnitude，closer in interest，and more event－ ful than of old ：not in deeds of barbarism， but in the leaping，vivifying impulses of a bet－ ter birth of the soul．
The official communication of Lieut．Maure， in favor of a railroad from the Mississippi to the Pacific，is a very interesting paper，and it is thought he satisfactorily demonstrates that such a road will be the best and the most effi－ cient fortification that can be devised for the protection of those distant shores．In support of his assertion he alludes to the following fact， which belongs to the history of the times ：－ ＂In the difficulties with Great Britain，pend－ ing the North Eastern Boundary Question，that power，before she sent her Minister Plenipo－ tentiary to Washington with her ultimatum proceeded to assemble on ourcoasts and around us，a fleet greater than the whole American navy；and notwithstanding she was engaged in two distant and expensive wars，one third of the whole standing army of Great Britain was sent to North America．Her sea cap－ tains had instructions in case a certain con－ tingency should arise，to proceed，and witbeat further oren arrmence hostilities by an attack upon our frontier seaport towns；war was to be declared at the cannon＇s mouth．－ Suppose the attack had been made upon New York，and that the systems of railroads and magnetic telegraphs in the old States had been then as complete as they are now－before the echo of the first broadside of her＂wooden walls＂had died away in the highlands of Ne－ versink，the magnetic telegraph would have announced the fact of war，bloody war，in all
parts of the country，and the next hour would have found the trains of a thousand engines， filled with soldiers from the North，the South， and the West，all speeding with terrible rapi－ and the West，all speeding
This is a striking illustration of the advan－ tage of rail roads，and if the alternative could be submitted to our military men，as to whe ther，in defending the country，they would ra－ ther have the present fort：jications without the railroads，or the railroads without the fortifi－ cations，there would be but little doubt as to their choice．

As usual，there are some scores of inventive philosophers on here for the purpose of asking aid from Congress in building their models． There are three men with the balloon mania， one of whom pledges his sacred honor that if the Committee of Ways and Means will re－ commend an appropriation of $\$ 10,000$ ，he will convey the three hundred members through the air，in spite of the wind，to Baltimore and back again in less than two hours．He also proposes to carry the U．S．Mails for one－eighth the present rates，dropping them at the seve－
ral stations with the least possible delay．The advocates of the cheap postage system had better see to it．
Another genius is prepared to communicate a secret to Congress，by which＂grubs and worms，which infest fruit trees，can be effectu ally destroyed．＂He values the secret at the small sum of $\$ 100,000$ ．
There are at the capital several models of rotary pumps，one of which，it is said，is ca pable of throwing up nearly 1000 gallons pe
dered by Capt．Stockton for his gold mine in Virginia．
I conversed with a gentleman from your city this morning，who feels confident that he has at last hit upon a plan for establishing a tele－ graphic communication with Europe．Should this ever be accomplished，what a proud day will it be for science！The blue waves of the Atlantic once conquered，we could then com． municate with the whole world，and the inha－ bitants thereof would soon necessarily become
one langnage and one speech．＂
Mr．Leavens，of Springfield，Mass．，is here putting up his patent＂sash and blind ma－ chines ；＂they work admirably，so much so， that there was a keen competition for the pur－ chase of the right for this district．It is to be regretted，however，that there are no compe－ tent mecharics here，for when a fine model is wanted，the order is almost invariably sent North．The fact is there is so much false pride here that a mechanic is looked upon as an in－ ferior being，and the expression＂he is only a mechanic＂is quite common．In such a state of society，it cannot be expected that the skill－ ful artisan will take up his abode where he and his family are treated with contempt．If the hundreds of clerks who are daily trembling lest they shall be turned out of office，were good mechanics，it would save them a world of trouble．

The sipht Whild．
There has been quite an excitement in Ro－ chester，N．Y．，about mysterious sounds heard by visitors in the presence of three bespirited young ladies．Committees of ladies and gen－ tlemen have been appointed to try and find out the cause，but all in vain．The ladies＇ committee divested the be－spirited damsels of their clothing to find out whether that some－ thing or other，we sappose，was not concealed anderneath，but the sounds were heard just as well．They were placed on feather beds and all sorts of non－electric conductors，but the sounds were heard just the same－thus prov－ ing，no doubt，that there is no relationship be－ tween spirits and magnetic currents．The ounds reportchech beard，are certain raps on the floor or wall，and these raps have been
formed into a kind of alphabet，to repeat cer－ tain names，\＆c．（queer，this，very．）We per－ ceive by the names of some of the gentlemen on the committees，that they are men of high standing in Rochester，and some we know per－ sonally．It will all turn out to be a piece of nonsense，because the raps and all that has been done，is stuff－nothing sensible or of uti－ lity．All ghost stories are made up of just such miserable fiddle－faddle－and we all know that the swallowing of pins，mounting the air on broomsticks，\＆c．，constitute the amount of witch learning．
The late Ntrambat ixplosion at New
From testimony which has been adduced since this most terrible a．ccident took place， it is very evident that the cause of the explo－ sion was a want of water in the boilers．Parts of the boilers that have been found exhibit he action of fire，which should have been sound，if covered with water．The boat was resting on mud，and the pumps are supposed er．In such a case as this，we see what reck－ essness and want of care ddes．The ultimate cause of such an explosion，must be a com－ mingling of the liberated gasses of the water and some other gas，forming an explosive gas ike carburetted hydrogen when mixed with certain amount of the atmosphere．Its expan－ sive powers must be very extraordinary，for one piece of the boiler went through two cot－ ton bales and cut down two iron posts．No his．We therefore believe that some othe as must mir with the that some othe of must mix with the elementary gase of the water，to produce such terrific effects a those which result from steam－boiler explo－ sions．Of one thing we have no doubt－that is，our engineers on the western waters use steam of too high pressure，and the boilers of many of the steamboats are made of very in－ ferior iron．

A cotton factory is about to be established a Wilmington，N．C．，by an English manufac－

## Alleged Burying alive．

In the midst of exaggeration and invention， ｜there is one undoubted circumstance，says the
Quartely Review，which formerly excited the worst fears：the fact that bodies were of ten found turned in their coffins and the grave－ clothes disarranged．But what was ascribed， with seeming reason，to the throes of vitality， is now known to be due to the agency of cor－ ruption．A gas is developed in the decayed body which mimics by its mechanical force many of the movements of life．So powerful is this gas in corpses that have lain long in the water，that M．Devergie，the physician to the Morgue at Paris，the author of a text－book on legal medicine，says that unless secured to the table，they are often heaved up and thrown to the ground．Frequently，strangers seeing the motion of the limbs，run to the keeper of the Morgue，and announce with horror that a per－ son is alive．All bodies，sooner or later，gener． ate gas in the grave；and it constantly twist about the corpse，blows out the skin＇tillitrends with distention，and sometimes bursts the cof－ fin itself．When the gas explodes with a noise imagination has converted it into an outcry or groan ；the grave has been reopened ；the pos ition of the body confirmed the suspicion，and the laceration been taken for evidence that the wretch had gnawed his flesh in the frenzy of despair．So many are the circumstances which will constantly occur to support a conclusion that is more unsubstantial than the fabric of a dream．

## Discussion About．

Prof．Matteson，who is lecturing on Astron－ omy in Newark，quite startled his audience， says the Newark Daily Advertiser，by indulg． ing in several curious speculations in regard to the curse resting upon our globe as the results of the first transgressions，and upon the ques－ tion of its having extended to the moon．The question of the moon＇s participation in the fi－ nal conflagration of our globe，and of her con－ tinued attendance upon the＂New Earth，＂ after the Day of Judgement，as she did upon ur new made world before the fall of Adam were also considered．＇
［There is one question which should be set－ led by believers in the Bible before they begin to speculate upon the manner of the moon＇s destruction，and thatis，the preparation of man for the world＇s destruction．

Copper at Pittshurg
The works erected at Pittsburg for the smelt－ ing of Lake Superior Copper，now smelt from six to eighttons perday．The Detroit Free Press，remarking uponthis，says the amount of minerals melted this year is 900,000 pounds －the product of which is 540,000 or 60 per cent．But as copper is largely mixed with the slug to be melted over，the average yield is es－ timated at 65 per cent．From the amount of metal received and that to receive，about 600 tons of copper will be made this year at the Pittsburgh furnace．
The capitalists of Pittsburg seem determined to make something out of our mineral resour－
ces．It would seem，that if copper can be transported to Pittsburgh and there smelted at a lasge profit，that capitalists might reap large profits from smelting works here．Having a direct water communication by steam vessels with the mining regions，and having every fa－ cility that could be offered anywhere for the erection of smelting works，manufacture and stripping of the smelted copper，it seems strange hat our own

The Free School law submitted to the peo－ ple of the State of New York at the recent election，has been adopted by the following vote：For Free Schools，249，972；against Free Schools，91，951．Majority，157，521．－ This is a glorious majority against the advo cates of ignorance and darkmindedness．

Professor Kollenati，of Berlin，has propoun ded a theory that men shed their skins as ani mals do their coats，and that like them they assume a thicker or a thinner covering，accord－ ing to the climate in which they reside．The professor is correct，but rather late in his de

Gliddon＇s Panorama of the Nile
This Panorama was opened for a primary private exhibition，to the faculty of the New York press，and the friends of Mr．Gliddon，on Tuesday of last week．The Panorama of the Nile，as a work of art，is unequalled by any that we have ever seen．The figures of horses nd camels，that compose part of the scenes were painted by master－hand like paint ke living figures than representations．The work is derived from the studies of Mr．Bono mi ，the traveller and artist，Messrs．Henry Warren，Fahey，John Martin and Edward Corbould，of London，were the artists－a ga－ laxy of talent which would let no poor piece of workmanship pass out of their hands．Mr Warren is President of the Water Color Socie－ ty，and is a man of fame．

We have every thing to say in favor of the panorama，but have to regret that the compli－ ment to the gentlemen，（and ladies too）of the Press，was enough to press the very essence of good nature out of them．It was too crowd－ ed by far．

Hartford Arts Union．
The Association composed of mechanics， manufacturers and artisans，at Hartford，Ct．， has completed its organization，and elect ed its efficers．We have received a copy of the constitution，and see a very excellent arti－ cle in the Hartford Courant，explaining its ob jects．We cannotbut say a good word for this Institution．All the people in Hartford are acquainted with its objects by this time，and every true－hearted man must respond to their nobleness of aim．No young man in Hartford can plead any excuse for not joining it，the terms are so moderate．The names of the gen－ tlemen who have been elected to office is a sure guaranty to us，that it will soon be an Institu tion of which Hartford will feel proud．

## Interesting Fact in Grafting．

Du Hamel，the celebrated French pomolo gist and horticulturist，ingrafted a young le mon，of the size of a pea，upon the branch of an orange tree．It grew there，ripened，and had all the qualities of the lemon，without partaking of any of the properties of the orange It is evident，in this instance，that the stalk of the lemon changed the colur，taste and smell of the juices of the orange tree．And from this experiment，we have reason to con－ clude，that all the different figures，colors， tastes，and smells，which we find in different plants，are formed in the plants themselves．

Worcester Mechanics＇Association． We have received a copy of the Reports of the different Committees that were appointed to examine the merits of the machine，works of art，\＆c．，which were exhibited at the late（Se－ corid Annual）Exhibition of the Worcester County Mechanics Association．We wish that we had room to copy all these reports；the anguage is so judicious and the ability of the various committees，for their different duties， so manifest，that we cannot but look upon it－ self as a valuable commentary upon many works of art．

Convention of Iron Masters．
A Convention of a number of iron masters of the United States，met at Pittsburg two weeks ago，and published a number of resolu－ tions against an ad valorem duty．They want a duty of $\$ 9$ put on every ton of iron，when priced at $\$ 15$ ，and to be reduced as this price increases；and passed resolutions calling upon Congress to do something to relieve their trade．

## New British Coinage．

The British Government has commenced to make a new currency or coin upon the Ameri－ can Decimal Sytem ：cents and fiorins are to be used－the cent to be about one half an American cent－the florin 100 cents（ 50 Ame－ ican．）They might with more good sense have adopted the American currency in toto．

Pennsyivania supports a population of only 500,000 less than the whole six New England States，but the man－fame of the two are sadly disproportionate in favor of the Free School re－ gion．
The Fastest Steamboat in the World．
The steamboat Alida made a recent trip to Albany，from this city，running at the rate of 21 miles per hotr．

