# Srientifie Ameriam． 

THE ADVOCATE OF INDUSTRY，AND JOURNAL OF SCIENTIFIC，MECHANICAL AND OTHER IMPROVEMENTS．
VOLUME 5．］
NEW YORK OCTOBER 27， 1849.
［NUMBER 6．

Scientific American，
best mechanical paper in the worle CIRCULATION 12，000．
PUBLISHED WEEKLY． 128 Fulton Street，New York，（Sun Building，）and BY MUNN \＆COMPANY． The Principal Office being at Now York． Barlow \＆Payne，Agents， 89 Chancery Lane，London TERMS－－\＄2 a yearo－$\$ 1$ in advance，and the remainder in 6 months．

## IRnil IRumid Ilems

Rallroad to the Pacific．
A large and enthusiastic meeting was held in New Orleans on the evening of the 5th inst． for the purpose of taking into consideration the project of uniting the Atlantic and Pacific Oceans，by means of a railroad．One of the speakers said，＂It is 1400 miles nearer to San Francisco from New York via Tehuantepec， than by Panama；and for Louisiana and the other gulf and river States，it is 1,825 miles shorter to go to San Francisco by Tehuantepec than by Panama．＂
The meeting expressed itself in favor of the Tehuantepec route，and passed a series of re－ solutions embodying its sentiments．The de－ legates from the State to the Memphis Con－ vention were to be instructed to bring the route under the Convention＇s consideration． The following resolution passed by the meeting is in the right spirit．
Resolved，That we are in favor of the con－ struction of a Raitroad to the Pacific entirely within the territories of the United States，if， upon examination and survey such road shall be ascertained to be practicable；and that we will heartily aid，so far as our efforts may avail， in the support and prosecution of such an un－ dertaking，whatever may be the route which shall be finally determined upon．

## New Light for Rallroads．

Proff．Grant is at present engaged in arrang－ ing his＂Calcium Light，＂for the use of the Camden and Amboy and New Jersey Railroads， to be placed upon the front of the locomotives． Should this prove successful，says the Phila－ delphia Ledger，and of the utility Professor Grant supposes，it will render travelling by railrod as safe by night as by day．This light is a discovery by Proff．Grant，and is said to combine the several qualities of both the Electric and the Drummond light，and can be furnished at a comparatively much cheaper rate than the ordinary lights．

## Great Tunnell．

The Huddersfield and Manchester Railroad Tunnel，in England，is more than three miles in length，being the largest in the world，at a depth of 625 feet below the ridge of the hill， which it pierces．The tunnel is so perfectly straight that on a clear day one can see through from either end．

Panama Isthmus Rallioad．
The contract for grading about half thecon－ templated railroad across the Isthmus of Pa － nama had been taken by a Philadelphia house．

## Wheeling Suspension Bridge．

The Suspension Bridge at Wheeling is com－ pleted and passengers are now crossing．Mr． Ellett the enginer first crossed in a horse and buggy．

## The Blue Ridge Tunnel．

The Louisa Railroad Company has awarded $\square$ the execution of the Blue Ridge Tunnel to Mr． Rutten，ofl New Yo

NEW CLOTH－FOLDING MACHINE．－－－Fig． 1.


This machine is the invention of Messrs． Carey \＆Bagley，of Amesbury，Mass．，wh ave taken measures to secure a patent．
Figure 1 is a．perspective view，and fig． 2 is a plan view－looking down upon the machine． The same letters refer to like parts．The ob－ ect of the machine is to fold the cloth upon a able，by friskets lapping down on the table
 are governed by cams，but the main shaft has a rotary motion，and can be driven by a belt from the shaft of the prime mover．A is the frame of the machine； B is a pulley on the main driving shaft，to give motion to the whole machine．The reader must suppose the cleth to be taken from another table and carried above the middle of the table or folding－board， S ；and G G the friskets that lap it down，al－ ternately，from side to side，on the table．On the shaft of the pulley，B，is a crank，C，at－$l$ and only rise to let the ends of the friskets

Figure 2.
pass under them to fold the cloth，and imme－ $\mid$ jections below，and to the cross bars，$A \mathrm{~A}$ ， diately fall when the friskets rise．These sten－ ter bars are just cross bars，with some pin teeth in them，and are fixed upon two short arms each，which are secured on rocking axis， T T．The rocking axis of these stenters for re－ taining and holding down the cloth，are mo－ ved at the right moment by cams，MM，on the axis，L L，of the friskets．These cams strike projections on the under side of T T，and thus make the stenter bars rise，opening like jaws， which immediately fall when the frirksts rise，
tached to the connecting rod， D ，which is at－ tached at the upper end of the machine to a longitudinal bar，$F$ ，which is attached by cranks，$E \mathbb{E}$ ，to the axis，$L$ L，of the friskets， G G．It will therefore be observed，that when the crank，C，revolves，the bar，F，will have a reciprocating motion，and the axis，$L$ L，will have a rocking motion，giving the friskets，$G$ G，vibraing motion fromplae to siade，alter－ nately，to lap or fold the cloth down on the table．＂One of the friskets，in fig． 1 ，is repre－ sented as being down，and the other standing up．When the one frisket is rising the other is falling，and they pass at the vertex of the angle which they form．The friskets alone could not fold the cloth，as every lap must be retained in its proper place when laid down． This is done by two rocking stenter bars， H H， which hold down the cloth snugly at each side

jections below，and to the cross bars，A A，as
seen in fig． 2 ．
The table，S，rises and sinks like a balance table of weighing machines．It has four round guide bars， 00 ，（two not seen）which pass through openings in plates inside，and it has a pillar attached to its centre and passing down，is attached by a chain to the periphery of the balance pulley， $\mathbf{N}$ ，which is secured on a shaft，$R$ ，having a weight，$Z$ ，attached to an arm on one side of it．Therefore when there is no cloth upon the table it is high up，allow－
fold，and as the weight of the cloth increases on the table，it gradually sinks，overcoming the gravity of the weight，$Z$ ，allowing the cloth to be folded under the stenter bars on the table．
A．t the right hand there is a register wheel， I．It tells the number of yards folded on the table．It is moved one topoth every half revo－ lution of the pulley shaft，B，or every fold of the friskets．This is done by a ratchet cam， K，extending through the said shaft，which takes into the teeth of the wheel，moving it one tooth round every time it catches，the ratch－ et，J，holding the wheel from turning back in the other direction．
We have thus described this machine in such a way that its motions will be easily un－ derstood，and its merits appreciated．More information may be obtained of the inventors， by letter（ $p . p$ ．）

## Cusptal 解itrints．

How to Preserve Grapes．
The following article from the Newark（N．J．） Sentinel will be very impertant and useful to many of our readers．
For several years past I have succeeded in preserving Isabella grapes till March．We have had the luxury of having fresh grapes all through the winter；and have found them very useful and refreshing to the sick，especially to consumtive people．We pick our grapes to preserve for the winter as late as we can，and save them from frost ；gathering them when they are perfectly dry，say in the middle of a sunny day．We take a dry bex，－a common sunny day．We take a dry bex，－a common
candife box is very eonvenient for the purpose， first cover the bottom with common cotton bat－ ting．We then put down a layer of grapes， one cluster after another as thick as they can well lay．Care should be taken that there are no broken nor green ones in the clusters．－ If there are，they will cause the others to mould and decay．We then put down a layer of cotton batting，and then another layer of grapes，till the box is full．
Some have been at the trouble to seal the end of each stem with wax．We do not be－ lieve it is of any service．As the stems are brittle it is necessary to handle them with a great deal of care．When they are thus laid down，much depends upon the place where you deposit the box．It should be placed in the driest aud coolest place you have in the house．Some prefer the garret．There they are apt to wilt and loose all their flavor．Some－ times they will mould in the cellar．The prin－ capal difficulty in preserving grapes lies in the keeping them secure from the time you lay thern down and the setting in of cold weather． After that there is no difficulty ；I have gener－ ally had them come out as green and as fresh in the middle of winter as they were when first laid down，and with all their original flavor． So far as my experience goes I have succeed－ ed best in preserving them in the upper part of the cellar．I have never failed in preserving them in this way．As they may be kept，they become a more desirable fruit，and the culti－ vation of the vine should be greatly increased not for the purpose of making intoxicating drink，but as an aiticle of wholesome food．－ There can be no doubt but that fruit should con－ stitute a much larger share of our diet．＇The free use of it would relieve us in a geat mea－ sure of some of our most common diseases．

How to IKeep Smoked Hams．
The best method of keeping hams is，after they are smoked，to put them back into the erfectly as when put in ashes or kept in a

