THE ADVOCATE OF INDUSTRY，AND JOURNAL OF SCIENTIFIC，MECHANICAL AND OTHER IMPROVEMDNTS．

VOLUME 6．］

Scientific American， CIRCULATION 16，000． published werisy
At 1 1z Fulton，streat，N．Y．，（Sun Building，）and 13 Court streat，Boston，Mase
BY MUNN \＆COMPANY，
The Prinoipal Office being at New York．
$\qquad$

Barlow，Payne $A x$ Parken，Lond



## 

The Virginia central Railroad．
A meeting was held in Richmond，Va．，on the 1st inst．，to take into consideration the extension of the Virginia central railroad from Staunton to Covington．Among the speakers were General Chapman，of Monroe，and Hon． Henry A．Wise．A preamble stating that， whereas，by an act passed at the last aes－ sion of the General Assembly，the capital stock of the Company was increased to the sum of $\$ 700,000$ ，three－fifthe of which are to be paid by the State when two－ffithe are raised by others than the Commonwealth，was followed by a resolution，unanimously adopted，that the city of Richmond ought to subscribe，at the proper time，the full proportion of the aaid three fifths．

Hudson River Railroad．
This road has declared a dividend of $3 \&$ per oent．for the last six months．It is doing well． The engines are excellent and run at a great speed ；the rails and track are not kept in such order as the mactinery－this is evident to any person who travels on the road．A large force is now on the roall between Poughkeepsie and Albany，and when the road is completed to Greenbush，we will have direct railroad com－ munication to Albany and Troy．＂There＇s a good time coming．＂

Lebanon Valley Railroad
The survey of the proposed route of this road is completed through from Harrisburg， Pa．，to Reading．It is to crosa the Schuylkill a short distance below Reese＇s mill in Reading． Operations for the grading and levelling the road will，in a short time be commenced．

Dayton and Springtield，Ohio Railroad．
The Dayton Journal，of the 30th，saya，the iron is laid on the track to Springfield，about twelve miles out of Dayton－that the road will be completed to Springfield so as tu have the cars running by Christmas．

The Central Ohio Rallroad．
The letting of twenty－two miles of grading and masonry on the Railway from Covington， Miami County，to St．Paris，in Champaign County，is advertised in the Cincinnati Ga zette．
The private subscriptions in Maysville，Ky． for building the railway from that city to Lexington，have been secured to the amount of $\$ 50,000$ ，and the Eagle says the amount will probably be increased to $\$ 100,000$ ．The aggregate from the city will not be lesa the aggregate
$\$ 200,000$ ．

Losing the Trade．
The Newburyport Herald says that Ameri can castor oil，formerly the best article of the kind in the market，and in demand for even foreign shipment，has now become almost unsaleable，owing to its great adulteration by the mixture of lard oil．

## IMPROVED HAND COPYING PRESS．

Figure 2.
Figure 1.


This is a very neat and good invention of $\mid$ handle or lever which moves on a pivot joint Mr．A．A．Wilder，of Detroit，Michigan，the at its lower end，on the top of the plate，B． author of the Leeway Indicator，illustrated The links，$G$ ，are united to the lever by a pi and described in our last number．（The ini－ tial of the name being wrong therein．）This is a lever，not a screw press，and is very con venient and rapid in its operation，beside be－ ing so combined as to be quick in its first mo－ tion，giving out little power，and slow towards the end of the atroke；giving out the greatest amount of power，where it is most required Figure 1 is a perspective view，and figure 2 is a plan view of the bed platé．A is the bed plate，with a sliding bolater， D ，on it．This bolater moves in a groove， K ，（fig．2）and is set by a screw（E，fig．1）at any part of this groove，so as to open or narrow the space be－ tween the pressure plates for the receiving of parcels of various thickness，to be pressed．B is a pressure plate，secured to the bolster，D． C，is the moveable pressure plate，with two projection shoulders，$F$ ，（one only seen）which are inserted in grooves， J J ，of the bed plate （fig．2）to move，as it were，on their projection shoulders，as on axes in the said plate．The two plates，B C，are now set open to receive po any parcel for pressing，the plate， C ，being thrown back for that purpose．They are both
united together by the rule links，$G$ ．$H$ is the vot joint，and also united to the plate，C，by a joint of the same kind attached to the inside shoulder of a setting screw，which works through a box，I，on the top of the plate．This screw increases or diminishes the ween the top of the two plates．
Opreation．－Place the article to be pressed between the two plates，as they now stand and take hold of the lever， H ，bending it down by the right hand towards the right side．This brings the two plates，B C，together，and as the pivot joint of the links，$G$ ，in the handle， is brought behind the pivot joint of the han－ dle，at the tup of plate，$B$ ，the power applied increases as the lever moves eliptically，until it is on a line with the fulcrum of the said le－ ver and top of the plate．This press is a good invention；we have no doubt but it will soon come into general use，asit is exceedingly con－ venient and handy to use；and it exerts a far greater amount of pressure according to its size，than a person would at first sight sup－ ose．
The inventor has taken measures to secur it by patent，and more information may be ob tained from him by letter，addressed to Detroit

IMPROVEMENT IN STEAM AND VAPOR ENGINES．


The accompanying engraving represents an $\mid$ to a locomotive to work the steam expansive－ mprovement in working the elide valves of ly．The valves are two pistons，A B，fixed on engines，which has been patented at home，the same rod，and sliding steam tight in the and recently in Britain，by the inventor，Mr．cylinder，C D，is a passage in the said cylin Ethan Campbell，of this city（New York．）The der，for the admission of stoam from the boil－ engraving representa the invention sa applied｜er．$E$ ，is the valve rod，it is actuated by a
cam arm，F，from the cross－head，which arm comes in contact with studs on the rod，E during the stroke of the piston，at the proper tume for cutting off the admission and escape of steam to and from the cylinder．The pis． ton is represoutad as performing the stroke from right to left，the induction passage being full open during one half of the stroke．The arm，$F$ ，is just coming into contact with the atud，$G$ ，by which the valve rod， E ，is carried a sufficient distance to close the induction port by the piston valve，$A$ ，and then it re－ mains opposite to it；the stud，$G$ ，at ite low－ or end，is then received into a groove，H，in the plate represented，which is secured to the frame of the engine．This groove drawe down the atud，when the oam arm，$F$ ，slips its hold， and the main piston，$P$ ，in the oylindor，$R$ ， continues it duwnward stroke with the oduc－ tion passage of the main cylinder still full，the piston，B，having stopped ahort of the said passage．The arm，$F$ ，next comes in contact with the stud，$K$ ，towards the end of the stroke，whioh co：npletes the movement of the valves，carrying them past both ports，and in a proper position for the reversed stroke of the engine．By this movement of the valve rod the position of the studs $G$ and $L$ is reversed， the atud，$L$ ，being carried into the highest part of the groove， H ，and the stud， G ，into the lowest，out of contact with the arm，F．A like action takes place on the reverse stroke of the arm，$F$ ，first atriking the stud，$L$ ，and car rying the valve rod，$E$ ，as before stated，a suf－ flcient distance to close the then induction port by the valve，$B$ ，remaining opposite thereto， the arm，F，slipping its hold of aaid atud，$L$ ， at that point．The stroke of the rod，$E$ ，is completed by contact with the fixed atud，$M$ ， when the motion will be reversed．The bricks， N N，are employed to strengthen the studs，$G$ L ，and prevent them from setting fast in the groove，H． $\mathbf{O}$ is a hand lever connected with the valve rod， E ，to work the valves by hand when required．$U$ is the connecting rod of the main piston rod，S．T T are guide rods for the slide of the arm，F．The olaim for this improvement is the working of the valves to cut off at any portion of the stroke，and to prevent what is termed＂wire drawing of the steam．＂

## To Cook the Ege Plant．

The following mode has given satisfaction so far as we have known it tried．Cut the purple egg plant into slices a third of an inch thick．Put the slices on a plate，one over the other，with a sprinkling of fine salt between each layer，and lay a weight of three or four pounds on the top；leave them in this situa－ tion four or five kours or over night．The salt will form a liquid with the juice of the egg． plant，which will take out the bitter quality． The liquid should be drained off．Fry them brown in lard or butter．
The following is the mode of stewing the plant：Take the purple kind，stew till soft， take off the skin，mash it with butter and sweet herhs，grate bread over the top，and bake it till brown．

Washington Irving relates that Abdallah， the father of Mahomet，was so beautiful that ＂no less than two hundred Arab maidens died of a broken heart the night he was married to Amina．＂

A pretty good story we think．
Two carrier pigeons，taken out by Sir John Ross，who is in search of Sir John Franklin， have arrived at their homes in Scotland．They have flown 2,000 miles．
The embroidered muslins of Switzerland are to be prohibited in France，because they in－ terfere with French manufacture

