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## Improvements in Carding．

Messrs．J．Lambert \＆J．Zimmerman，of Waterloo，N．Y．，have made an improvement in the working of Carding machines，for which they have taken measures to secure a patent， and which is said to card double the quantity at least，in the same time，than has usually been done by the old mode of operation．The ＂Workers，＂instead of carrying round the wool from the main cylinder，at once，by revolving in a contrary direction，revolve with it，and car ry the wool but a short distance to the strip ry the wool but a short distance to the strip
pers，and thus，by the vay，they are geared pers，and thus，by the vay，they are geared
the＂workers＂are rendered workers indeed， and not merely in name．

Tapestry，Velvet，and other Carpets．
Mr．James Templeton，of Glasgow，Scotland has taken out a patent in England for an im proved method of manufacturing carpets，the designs of which are produced from the weft threads，which are previously printed to pro duce the design or pattern．He makes velve carpets by employing chenile weft，previbusly printed，which weaves up into the patterns de－ signed；he also makes carpets by the printed weft，which work up into patterns on both sides of the carpet，like those of the ingrain carpet．The principle of this important im－ provement in carpet weaving to do away with the jacquard，lies in the mode of printing and preparing the weft，previous to weaving．

Sclentific and Mechantcal Information More than ever，our attention for the future will be devoted in procuring the latest and most important information from all part of the world，respecting new and useful improve ments and discoveries．Our correspondent in London，of whom we spoke a few weeks since， will impart interest to our columns，by his re－ views on the Grand Industrial Exhibition，to be held in London next year．All inventors prefer to have engravings and descriptions of their inventions brought first before the public， through the Soientiffe Amertogn，The reason is plain；we have the largest circulation of any other paper，and the public look to ou columns for what is new and useful．

Improvement on Steam Engines．
Messrs．B．Donkin and W．Farey，styling themselvas Civil Engineers，have recently taken out a patent in England for improve－ ments in disc engines，connected with which， their patent embraces an improvement in work－ ing slide valves to equalize the pressure of the steam on both sides of the slide；to do this， the face on which the valves slide，is serated or grooved，and these grooves will contain steam under the valve．

To Inventory and Patentees．
Our list of patent claims is worth more to you than the price of the volume．Our index is so arranged that all the patents granted，ar classified，and affords a most useful and stan－ dard work of reference．Inventors who con sult their own interests，cannot be withou the Scientific American．

Crank and Pully．
A number of experiments with two boats the one named＂Crank，＂and the other named ＂Pully，＂have lately n made on the East
River，by Mr．Pete tes，to test the com． River，by Mr．Pete tes，to test the com parative value of
Pully，we have been informed，has universally Peen the victor．In the course of one or two
ber been the victor．In the course of one or two
weeks we will illustrate Mr．Yates＇invention of the＂Pully，＂as applied to a steam en gine，in place of the crank．

## $\rightarrow$ Notice．

In referring to the address of the proprietors of the Rotary Brick Machine in our last week＇ number，it should have read，＂Address Wag－ ner \＆Imlay， 203 Market，or 74 Walnut st． care of A Miller，Esq．，Philadelphia．

India Rubber Flute．
An eight keyed flute made of india rubber has been made in this city，by Mr．Badger． It has a fine polish and looks like tortoise shell．It has a beautiful，tone and cannot be affected by the weather．
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Improved Maehinery for Grinding spiral
Knives．
Mr．Jas．L．Plimpton，of Westfield，Mass．， has invented some valuable imprevements on
machinery for grinding Spiral Knives，for machinery for grinding Spiral Knives，for
which he wisely has taken ${ }^{\text {² }}$ measures to secure which he wisely has taken ${ }^{\text {² }}$ ．measures to secure a patent．The invention embraces two new
and excellent features；one is to grind the edge of every one of the same bevel，and to change the bevel on the frame which holds the knives tis

## BROWN＇S ECCENTRIC TOBACCO PRESS．

Figure 1.


This engraving represents a side and an end iew of a press constructed upon the principle mbraced in the patent of Mr．A．D．Brown of Clinton，in Georgia．It is intended for pressing tohacco on plantetion，butit is equal－ $y$ applicable to the pressing of hay，as a cider press，\＆c．As the principle patented is de－ scribed on page 96，this vol．Sci．Am．，we need not describe it again．In this press the crank， axle and wheel，and the eccentric pully are combined，and according to modifications of gearing，the power may be increased to any mount；the principle of great speed where ittle power is required，always being main tained，and vice versa．A is the eccentric lever pully；$B$ is the stock of the pressure block C and D represent the barrel and packing cov er；E E are the ratchets；F，the $\operatorname{cog}$ wheel on the drum shaft，which is driven by a pinion，$J$ ， （fig．2）；$G$ is the chain passing round the drum，$F$ ，over the eccentric pully，and is se－ cured on a strong block on the frame；$H$ is the ope which raises the follower and block up， after the tobacco，\＆c．，is pressed in the barrel or
bog．It is not necessary，after our reference

## Varlations of the Compass．

The loss to Great Britain by shipwrecks， appears from caxefully prepared statistics，to amount annually to between 500 and 600 ships， or about three vessels in every two days．The cause has been attributed，in a great measure， to misdirections of the compass produced by attractive power of the iron used in the con－ struction of the vessels，as well as the funnels， tanks，and guns employed in men－of－war．The result varies in different cases，and a remedy can only be obtained by direct experiment on board each ship．A＂compass observatory＂ has accordingly been established in England， where every ship of the Royal navy has its compass adjusted before proceeding upon a cruise．The praetice has，as yet，not been extended to the mercantile marine．

The Bakatlas of South Arrica． The Bakatlas work a great deal of iron， manufacturing various articles，with which they supply the neighboring tribes．They obtain their iron from ore，which they procure by excavating in the surrounding mountains． This ore is smelted in crucibles，a great deal
of the metal being wasted，and only the best and purest being preserved．They uss a sart
without changing the knife or knivess；as in the
old way；the other is to accommodate the feed of the knives on the frame to the speed of the stone，to make the grinding time uniform－ this is done by a friction roller on a swinging frame，running in contact with the stone，so that as the stone decreases in diameter the feed of the knive frame becomes slower in propor tion．
and embowers the trellis work of quite a larg garden，besides climbing a tall tree．The weight of the immense clusters of grapes hanging upon it，now about half grown，is estimated at a ton．To stretch out any of the branches in a direct line，they would measure rom three to four hundred feet．The descrip tion of the grape is not natural to the country but was brought to Natchez in the old Spanish times．It is called the＂Jack Grape，＂from ＂Spanish Jack，＂the nickname of the Span－ ard who planted it．Some years ago，Madame Bingaman，now dead，offered Mr．Casey five hundred dollars if he would remove the vine safely to her garden，in the environs of the city；but no sum of money whatever，would induce the owner to part with it．It produces a wine which has the taste of Hock．
The Electric Telegraph in Europe．
It is well known that various projects have been proposed for a Transatlantic Telegraph； this will be no eaky matter，owing to the length of wires required．In the present state of Electric Telegraph science，it is im－ possible，owing to the distance of such a length of wire ketween the batteries．Between Calais in France，and Dever in England，the distarice being no more than 25 miles，the project of an ocean telegraph is not only feasi－ ble，but the construction of one is in actual operation to unite France and England．The Telegraph is to be on Bain＇s prineiple，now so well known in America．The telegraph，like steam navigation，will bithemeans of spread ing rapidly the arts and sciences of civilized nations among all lands．The Dublin Univer－ sity Magazine saye
＂When the powers of this improved tele－ graph shall be brought into hll operation，and when the mode of intercomunication shall be available by the public inall parts of Eu－ rope，great changes in the soonl and commer－ cial relations of the centres of sommerce and population must be witnessed．Hitherto，the use of the telegraph has been mited to the Government．The public has ban altogether excluded from it．Such a systes，however， cannot be of long duration，and th precursors of a speedy change are already aparent．A project of law has been presented tethe Legis－ lative Assembly，by the French Gvernment， to open the telegraph to commerc and the public．Lines of electric telegraph ave been constructed，and are already in veration， along the principal lines of railway inFrance． A commission has been appointed，by the Belgian Government，to report upon thmeans which ought to be adopted to construc lines of electric telegraph throughout that kidom． Lines of considerable extent are in opation in the Prussian States，and still more exhded systems are in preparation．Measures को in progress for the establishment of lines of ec－ tric telegraphs in the territories of Ausia， Saxony，Bavaria，Wirtemburg，Baden，anall the lesser states of Germany．The Empar of Russia has issued orders for the constri of Russia has issued orders
tion of lines of telegraphic wires to connect Petersburg with Moscow，and with the Pru sian，Saxon，and Austrian lines of tele graph．＂

Sticking，or Court Plaster．
Bruise a sufficient quantity of isinglass，and let it soak in a little warm water for four－ and－twenty hours；expose it to heat over the fire till a greater part of the water is dissipa－ ted，and supply its place by proof spirits of wine，which will combine with the isinglass． Strain the whole through a piece of open linen， taking care that the consistence of the mix－ ture shall be such that，when cool，it may form a trembling jelly．
Extend the piece of black silk，of which you propose making your plaster，on a wooden frame，and fix it in that position by means of tacks or pack－thread．Then apply the isin－ glass（after it has been rendered liquid by a gentle heat）to the silk with a brush of fine hair（badger is the best）．As soon as this first coating is dried，which will not be long， apply a second；and afterwards，if you wish the article to be very superior，a third．When the article to be very superior，a third．When
the whole is dry，cover it with two or three the whole is dry，cover it with
coatings of the balsam of Peru．

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