
$\sim_{0}$ Reported expressly for the Scientific Ameri－ oan，from the Patent Office Records．Patentees will find it for their interest to have their inventions il－ a larger circulation than any other journal of its clasa in America，and is the only source to which the pub－ lic are acoustomed to refer for the latest improve－ ments．No charge is made except for the execution of the engravings，which belong to the patentee af ter publication．

## LIST OF PATENT CLAIMS

lasued from the United States Patent Office for the weef ending february 26， 1851. To John Pepper of Portmmouth，N．H．，（assignor Charles Warren and H．G．Sanford，of Boston，Mass．，
forimprovements in Knittiog Machines．Ante－dated Aug．25， 1850.
I claim the balf jack vibrating on the comb bar，connected with the sinker frame，and with the movable cross bar and springs，for the purpose of depressing the tail ends of the jack，and thereby raising their forward ends with the jack sinkers，as aforesaid．
I also claim the movable cross bar，con－ taining the springs，connected as aforesaid， and for the purpose aforesaid．
I claim the cams in combination with the cross bar，with the projections thereon，hang－ ing bars，vibrating pivota，the cam bar，and the half jack，connected with the sinker frame， and for the purposes aforesaid．
I claim the combination of the cam，and the shoe and shoe plate，for the purposes afore－ said．
I also claim the combination of the cam with the shoe，the movable shoo plate，the chains，the semicircles and hub，or wheel and hub，the bar connected with the slur carriage and the slur knob，and the horizontal bar，the carriage connected with the carrier needle，for the purposes aforesaid．
I also claim the combination of the cams， with the levers connected with the frame，and with the ribbed needle bar，for the purposes sforesaid，also the same in combination with the presses，connected，moved，and operating and for the purpose aforesaid．
To Moses Pond，of Boston，Mase．，for improvemen in Cooking Ranges．
I claim the improvements by which the hot water back is connected with the plate，and by means of which said hot water back may be either readily removed at any time or ap－ plied in such manner that the directions of $i$ its water pipes may be disposed so as to accom－ modate the bath boiler，into which they are usually led；or whatever side of the range the said bath boiler may be placed，the said im－ provements consisting，first，in the connecting piece，and the attachments of it and the hot water back，the whole being made to operate together substantially in the manner as above set forth；second，in a second set of attach－ ments（fixed in the opposite face of the water back），in combination with the first set there－ of，as described．

I also claim the peculiar arrangement of flues which lead the smoke and volatile pro－ ducts of combination，directly around the oven， the said arrangement of flues，causing the hea to course against one half of the bottom of the oven and into another flue，which takes it backwards and against the other half of the bottom of the oven，thence up a flue against the back of the oven；thence through a flue extending over and against half of the top of the oven，thence into and through the flue， which carries it backwards and over and against the top of the oven，and conveys it to the chimney or discharge flue，not meaning to include in such arrangement the radiating chamber or space hereinbefore mentioned．

And I also claim the two recesses and tw flue plates，a pplied to plate $R$ ，in combination with the valve opening，their damper and cam plate，as applied to the top plate of the oven frame，and used under an arrangement of over flues，substantially as described，the same al－
side of the fire place，or the use of two such and their frames in connection with
place，all essentially as before stated．
I also claim the improvement by which the I also claim the improvement by which the
oven can be raised and readily removed，and by which the smose is prevented from passing underneath the partition which separates the flues on the top of the oven，the same consist－ ing in the sliding or gravitating plate affixed to the partition and made to
tially in the manner specified．

## tially in the manner apecified．

To Marvin Smith，of New Haven，Conn．，for im I claim the method，herein described，of ma－ sing or constructing the wind chest common ly used in seraphines，melodeons，and all si－ milar musical instruments，with one or more sides made of gum elastic materials，and in such way and manner as to be capable of ex－ panding and contracting，or of being increased or diminished in size，and with the aid of me－ tallic or other springs，to answer all the pur－ poses of the common bellows generally used in these and similar instruments，substantial ly as described．
To J．B．Wilson，of Townsend Inlet，N．J．，and Sta－ cy Wilson，of Kensington，Pa．，for improvement it pplying friction rollers to hub and axles．
We claim the herein described method of applying friction rollers to the axles of the wheel carriages the interposition between the bearing of the axle and the faces of the friction rollers，of a loose sleeve，through wiich the axle is free to slide endwise，while it at the same time carries the sleeve round with it in its rotation，the sleeve having a groove in its outer periphery，to receive the friction roll－ ers and prevent them from moving endwise on the collar
To J．D．Boors \＆Isaac Winslow，of Phila
Pa．．．for improvements in Planing Machines．
We claim the combination of the shifting bed plate with the planes，constructed in the manner herein described，the planes present ing any desired part of their edge for cutting the surface of the board，after the tongueing and grooving has been performed by the circu

We also claim the rotating arms with thei cover，combined with the plane，substantially in the manner and for the purpose herein set forth．
To T．C．Avery，of New York，N．Y．，for improve－ nt in Electro－Magnetic Engines．
I claim the use and manner of arranging the helices and poles of the electro－magnets，in combination with the revolving bars or sets of $\mathrm{b}_{\mathrm{a}} \mathrm{rs}$ ；that is to say the helice being upon the
bends of the magnets，from which the poles of the magnets extend towards and near to the centre of motion，and the revolving bars，or armatures，extending outwards from the centre of motion，and embracing the poles of the magnets，successively，as it rotates，for pro－ ducing a magnetic，multiplying power engine， subatantially in parts and principle as herein set forth．
To Joseph
To Joseph Banks，of New York，N．Y．，for impro－ ved connec．
buildings．
buildings．
I claim the method，herein described，of se curing together the beams and columns of cas iron fronts for houses，by means of the lugs， with their flanges on the upper and under sides of the enda of the beam，and the projections on the inside at the top and base of the co－ umns，as herein fully shown．
To Edward Clapp，（assignor to Edward Clapp in Sad Irons．
I claim the construction of the bottom of the polishing iron，the same consisting in ma king it with ridges or projections and conca－ vities，substantially as described．
To T．F．Bngelbrecht，of New Yors，N．Y．，）for im－ proved Doublo－Acting Spriıg Hinge．
I do not claim the combination of an ad justable，curved inclined plane，with a por－ tion of a hinge，and an adjustable bearing rol er，with the other portion of the hinge． But I claim the manner of combining the helical springe（two）with the cylindrical，ro tating tumbler，and cylindrical，sectional cas so that，by the rotation of the cylindrical tum－ bler，the heart－shaped projection will be made to traverse over the inclined plane，and cause he tumbler to rise and fall，and thus com
ing their coil，and simultaneously therewith， wind and unwind said helical springs，around the spindle，and thus cause them to act（by the motion of the door in either direction，）by torsion and expanision，to close the door，when it shall have been opened，as described．
To Francis Hoguet，of Philadelphia， Pa ，for im－ vemont in Extension Tables．
I claim the arrangement of a screw，or oth－ er equivalent device，in combination with th slides in such a manner，that a screw，or its equivalent，of sufficient length to move out one pair of slides，will move out any number described，substantially in the manner and for the purposes set forth．
To Wm．Sours，of Mount Jackson，Va．，focimprove

## I Cooking Stoves．

I claim the transverse partition，in combi－ nation with the arrangement of front and oack flues，as above described，for causing the several currents to unite after having traver sed
forth．
To Abner Lane，of Killingaworth，Conn．，for im－ I do not im mor I do not claim merely the employment of
two or more cutter wheels，cutter shafts，or cylinders，provided with any number of cut－ ters of any required form，fcr cutting the whole surface and forming articles of any irregular form，without the use of the model of the ar－ ticle to be formed．
But I claim this only when the cutting cy linders are sustained，revolved，and carried to and from the block to be twined，by a revolv ing cylinder，in whose periphery they are pla ced，without any longitudinal or lateral mo tion，substantially as described．
To H．W．Sabin \＆Geo．Drew，of C
N．Y．，for improvement in Spring Hinges
What we claim is the piece to one side of which the spring is attached，and which has， on the other，a projection，with a hole therein， by means of which and a pin，the spring can be engaged and disengaged，when the door is hut，substantially in the manner and for the purposes described．
To J．Sloan，of New York，N．Y．，for machine for
I claim the lifters which select and lift the blanks，\＆c．，from the hopper，substantially as specified，in combination with ways or conduc－ tors，or the equivalents thereof，substantially as specified into or onto which the blanks，etc． re transfurmed，as specified．
I also claim giving to the lifters，or to the inclined ways，or their equivalents a latera motion，in combination with a stop or detec tor，substantially as specifted，for the purpose of arresting the operation of the lifters，unti further supply is required，ad specified．
re－issues
To Horace Boardman，of Plattsburgh，N．Y．，for improved arrangement of Steam Boiler and
thereof．Originally patented Aug．14， 1849.
I claim the combination of a fire chambe and a water casing，the upper horizontal sec tions of both of which are greater than their lower，with a descending flue，the fire cham－ ber and water casing being so arranged with respect to each other，that both the larger sections of the one adjoin the larger sections $f$ the other，subatantially in the manner and for the purposes herein set forth．
I likewise claim the injection of a jet or jets of air，at the flues or passages，which connec the combustion chamber，with the descending flue，for the purpose of igniting the gases and retarding the progressive motion towards the bettom of the gas chamber
［We believe the principle of the last claim is at least ten years old．］
designs
To 8．H．Sailor（assignor to Warwick，Leibrandt \＆ Co ），of Philadelphia，Pa．，for Design for Cooking Stoves

## Music and Painting．

Music has been given us，by our bountifu Creator，to assist in amoothing the path of human life．The same being who－has covere the face of nature with bright and beautiful colors，has filled the air with sweet and expres sive sounds．He has taught us to listen to the melody of the birds，thesighs oi the pass ing breeze，and the accents of the human voice，with feelinge akin to those with which
of the woods，and the meadows enamelled with a thousand flowers．And He has taught us， a thousand fowers．And He has taught us，
too，to make our senses of the beauties of na－ ture，derived from the eye or the ear，the foun－ dation of $t$ wo exquisite arts，by which not only our perceptions of these beauties are quickened and enhanced，but our intellectual and moral qualities are called into action．Painting and music perform much higher parts than that of merely ministering to human pleasure．

## The Wants of Man．

Man is the most needy of all creatures． The horse constructs for itself a winter＇s dress， which is equally fit for wet or dry，day or night，out of the food it eats．The birds and fowls drop their feathers，but neither applies to the tailor or milliner for another suit；out of the seeds they consume，they produce robe and plumage of a texture and beauty which throw the apparal of a Solomon into the shade． The animals require neither plowing nor sow． ing，neither weaving nor cotton－spinning－ mines，factories，furnaces，fires，workshops，nor bake－houses；but man is full of wants．Hou－ ses，fuel，furniture，clothing，cookery，vehicles， and books are necessaries of life，if we would make him what a human being ought to be． The productions of one country are rarely suf ficient to supply his need．Animals have no wants which the boil on which they were born does not supply．The silk worm can live and rear its family，and construct its cocoon in a mulberry tree．A few yards of space will suit it better than the range of the universe The white bear，the reindeer，the elephant，the horss，the eagle，and the hippopotamus，have their own localiy，from which they cannot move without risk．But if you confine man to a small circle，you may starve him in body and mind．He is the creature of all climes； he was made for all the world，and all the world w orld was made for him．Wherever he goes he has something to sell or something to buy． Barter and traffic are no small part of his call－
ing on earth，in which not only his physical， but also his intellectual and moral nature are called into full play．Were there no trade and intercourse between mankind，there could be no morality．Justice and benevolence are intended to sanctify the relations，associa－ tions，and dealings of the human family． Give us cultivated fields，akillful artizans，good manufactories，industrious workshops，well－ manned ships，unrestricted commerce，free trade with all the world，and pure morality and philanthropy to regulate our proceedings， and we can place every comfort within the each of every child of Adam，and thus mutu ally enrich and bless each other．

For the Scientific American．
The Terms＂As Heavy＂and＂Heavier． If a square foot of water weighs 1,000 oun－ ces，and a square foot of iron weighs say 8,000 ounces，does it not follow that iron is eight imes as heavy，and seven times heavier than water．
If the above terms are not synonymous why is it that＂heavier＂is used instead of ＂as heavy＂in many popular and acientific works，including your own journal lately，in your article on Hydrostatics？Partington＇s ＂British Cyclopmdia＂would say that iron is ight times asheavy as water，and not eight times heavier，which in my opinion would be one too many．

W．B．
Old Cambridge，Mass．
［Our correspondent is correct about the pre－ cision of the terms which he speaks about，as can easily be proved，thus，say water 1，iron 8 ： $8-1=$ plus 7，or seven times heavier，eight times as heavy．

## Chasm Tower Blown Down

The Niagara Falle Iris of Saturday says this Observatory on Mount Eagie，was lifted by th：wind from its foundation，on Saturday last， when the wire cables by which it was stayed were broken，and the whole mass fell to the ground a heap of ruins．

It is but little more than forty years since the first crow crossed the Genesee river west－ wardly．They，with the fox．the her hawk， swallow，and many other birds and insects， seem to follow in the track of civilization．

## Zcientific $\mathfrak{A m}_{\text {mericar．}}$

## D．TS CORRESPONDENTS．

 H．of Pa．${ }^{-M r}$ ．Jeremiah Carhart No． 75 East 13th at．，this city，manufacture excellent melodeon reeds；you had bettersend an order to him．＂C．E．of Mobile．＂一We have just receiv－ ed your letter，and will attend to the business without delay，and writo you

C．E．F．，of S．C．＂－You are mistaken， altogether．We made no such statement as you attribute to us．By reference to the arti－ cle again，and by a careful study of it，you will see that we have not led you into an er－ ror，the fault being entirely your own．We said，emphatically，that＂it would not，＂and not that＂it would，＂as you say．
＂E．W．，of Mase．＂－You could not obtain a patent for the gutta percha as applied to cover the inside of pipes，because patents have been
taken out for preserving metals by the appli－ cation of gutta pereha to their surfaces．It is only a useless expense to apply it to cast iron pipes，for they are not subject to rust like wrought iron．
＂G．W．S．，of H．＂－We believe we under stand your plan，but do not think it will an never be perfectly correct．The reason of this is，that the drift of the vessel as a body will attract it from the true perpendicular．If you try some experiments on a large moving body you will find，we believe，that our views will be borne out．The best way to discover the amount of leeway is an indicator like Wilder＇s but the great difficulty to get such plans to work well，is their liability to incorrect opera tion．This is the reason why the chronome－
ter and quadrant，with the nautical almanac， are the only corract guides to navigators．
＂J．B．＂一Will please forward a model of his improved butt to this office

J．B G．H．，of Mass．－We have noextra number of the paper you refer to，to send A gentleman from Luzerne Co．，Pa．，showed u the uketch of a plan for oiling journals by the use of a belt，some 6 months since；we do not
remember his name．He was very sanguine of its success，and promised to furnish us the result of his experiments．We have not heard from him since．$\$ 2$ receivel．
＂T．R．C．，of－＿＂Will receive an answer to his letter in regard to the Corn Plan－ ter when he furnishes his proper address

D．T．，of Mass．＂－We have never been able to obtain a perfect union of the two me， tals any more than yourself，but our corres pondent says he has had the improvement，as mentioned，in operation．The plan he mixes them by is unknown to us，but there does not appear to be any reason for doubting that the one may be rendered positive and the othe negative，and thus insure their union．
＂R．W．W．，of Ind．＂－There is nothing new or patentable in your coupling for carria ges ；essentially the rame plan was shown u some time since．We cannot therefore a
＂A．B．of N．Y．＂－Mr．Francis is probably not the first inventor．The device may be more than four years old．We are uncertain on that point．
＂S．W．R．，of O ．＂－There have been no changes made in Patent Laws since 1842 ． The edition of the Patent Laws which was published at this office two or three years since
contains all the information you can get from any source．
＂B．W．S ，M．D．，of Pa．＂－The postage on the Scientific American to your place is 12 cents per copy．Many thanks for your fine list of subscribers．We have no second－hand steam•engine of the capacity you mention on hand，nor do we know of any to sell in thi vicinity．
＂G．B．W．，of Conn．，and O．C．，of Ill．－ The engravings of your inventions will appear in next week＇s paper．

Money received on account of Patent Office businesg，since Feb．26， 1851 ：－
S．T．，of Conn．，$\$ 55$ ；S．F．，of N，Y．，$\$ 20$ M．F．G．，of Iowa，$\$ 15$ ；W．N．，of N．Y．，$\$ 30$ J．O．，of Conn．，$\$ 10$ ；J．G．W．，of N．Y．，$\$ 20$ S．I，of N．Y．，$\$ 20$ ；J．W．，of N．Y．，$\$ 20$ W．G．，of N．Y．，$\$ 20$ ，and F．A．\＆D．S．R． of Conn．，$\$ 45$

Every correspondent should be particula nd attach the name of the State as well as the town from which he writes．We have etters now on file which came to hand with nclosures of money，but from the carelessness of the writer，no State mentioned in any par of the letter，hence the cause of many not get－
 ，Mich．，please read the preceeding para raph and learn wisdom
＂S．B．，of N．Y．＂－We shall examine your by letter．

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## American and Foreign Patent

 Agency．
## IN

 ongaged in havinug fur severaly years been extensively and ohemical inventions，offler their services to inventors upon most reasonable terms．All buai ntrusted to their charge is strictly confidential．Pri－
vate conultations are held with inventors at their ate consultations are held with inventors at the
office from 9 A．M．，until 4 P．M．Inventors，however need not ingur the expense of attending in person．a
the pretiminaries can all bo arranged by letter．Mo
Mo the preliminaries can all be arranged by letter．Mo
dela can be sent with safoty by oxprese or any othe
convenient medium．They shonld not be over 1 foo convenient medium．They
square in size if possibe．
Branches of our Agency have been establighed in
London，under the oharge of Messrs．Barlow，Payn
P Parken，celebrated Attornes \＆Parken，celebrated Attornies，and Editors of the
＂Patent Journal；＂，aliso in Paris，France under the
oharge of M．Gardiasal，Editor of the＂Brever d＇In harge of M．Gardissal，Editor of the Brevet din
vention．＂We flatter ourselves that the facilities we

posseas | posse8s for securing patents |
| :--- |
| right recognized，are not equalled by any othe |
| American house． |

PatENT BREAD CUTTER－The subscribe
 single State or for all the State日 exoept Vermont
Maine，Masmachusett，Rhode TIland，Connecticut
New York，Mishouri，，Illinois，and Iowa，on reasona


WanteD－An Hydraulic Press for makingimi－
tull partioulars，to WM．SMITH，Drect，prepepaid，with
VALUABLE Patent FOR SALE－Emhra－ mall counties，and a few towns of minor conse quence），Connecticut，and Rhode Island，entire．The
assignment of Morse＇s Patent Tan，Sawust，Peas，
and other fine fuel Burner for heat，the cost of such and other fine fuel Burner for heat，the cost of such
fuel being nothing together with a complete assort－ uint of patterns， 1 now offered for sale for a term
bout ten years，（patented 1846 ，on advantageou termb，with a stock of stoves ready for use，with the
same if desired．The stoveryield agood profit many
hundred have been and many thousands must be sold． The assignment belonging to a firm dissolved，must
esold to close the concern．To those persons who areusing this patent unlawfully，I say your areknown
and watched，and will soon be called upon to render an account for such violation．For further particu
lars inquire of E．F．DIXIE，Worcester，Mass． 243

ACHINES FOR CUTTING SHINGLES
 ginia，Nerth and Aouth Carolina，Georgia，Alabama，
Florida，Arkanas，New Mexico California，regon，
Sistritt of Columbia．and one half or The above territory is for sale with or without the
nachines．No machine ever patented can do the same amount of Wark in io pertecta manner．Ad．
dress CHARLES WATERMAN，West Meriden，Ct．

B ROWNS PATENT COUPLING FOR PAND PIPES．－This valuable invention Hich was illustrated and described inNo．42，Vol． 5 Sci．Am．）is now of ered for sale on reasonable termer
in either town，county，or State rights．For further in
information address，post－paid，the inventor and pa－
tentee，A．H．BROWN，Commercial Building，Alba－
ny，N．Y．
24

NOTICE TO MACHINISTS．－Wanted，imme－
chine shop，where the print hand a
chipal work donan of a mat ing stationary steam engines．An industrious man
with tetedy habitit，who can give testinaonials of his sure of employment at generous prices，if if pplication
be made soon．Reterence $\mathbf{W m}$ Kemble， 79 W est


PaTENT DREDGE BOAT．．．．The subsoribe
having obtained \＆patent for improvements on
the Dredge Boat，offers to sellrights to build and to having obtained a patent for improvements on
the Dredge Boat，offors to selligight to build and to use his Patent Dredge Boat in any part of the United
States；the excavating apparatus congists of twenty
scoops，preceded by plows receiving great pressure States；the excavating apparatus consists or went
scoops，proceded by plows receiving great presure
and are capable of raling eight or ten cubic yards and are capable of raising eight or ten cubic yarda ot
mud or rateve per minute the scooping apparatus
may be itted on an old steamboat or other vessel，for the purpose of removing baris or other obstruction
to navigation．A working model may be geen by
ben 20 10＊No． 64 Spruce st．，Now Bedford，Nass．
VILLIAMM W．HUBBELL．－．Attorney an
Counsellor at Law，and Solioitor in Equity

E Mond
 been duplicated by this process，without the slightest
injury having occurred in any intance．It
lieved that ab arespectable business in multiplying en graved patases could beestablishedin any of the large
cities，ospecially if carried on in conunction with
olectro－plating and gilding．Only three rights will be Bocd，whoplatinn and pilding．Only three rights will be ber Boston，New York，and Phila－
dill detphia，or an exclusive right for one city，and these
rights will exclude allothers，exceptingone to be re－
served for some place southof Pennsylvania，and the right now owned by the United States Government
GEORGE MATHIOT，Washington，D C． 23 3＊
THE Conashville manufacturive being now engaged in the erection of extensive ma－
chine works，wish to engage the services of a person thoroughly competent to manage the same．It it is the
intention ot the Company ongagextensively in
building locomotives ate ach as can furnish undoubted tastimonialas for skil
energy，and other requisites to fill the station，nee energy，and other requisites to fill the station，need
apppy．The Company aliso wish to employ a number
of machinists，founders，\＆o．，and would aiso receive
and propositions for the necesary tools，\＆c．，for such an
estabilisment．Immediate application，by letter or
personally，to the undersigned will meet

To
1 LUMMBER DEALERS．－－Law＇sPlanerhav－ rected and in successful daily operation，facing and
matching at the same time，and in both respecte，in a style not to he surpassed．The common objection
that machinesare expenive in repairs，is not applica－
ble to these new machines－they are siruple，strong， ble to these new machines－they are simple，strong，
and easily kept in order．It is connidenly believed
that when hey are well known they will have a deci－
 Machine dresses and joints staves ofali kinde，shapes， and widthn，by once pasing through．Rights of
machine for bale by H．LA
ter 1st March，at 23 Park Row．

## Hucusovi pativis inve wat 





##  cyd is nop prepared to offer a great varlaty of of Ma clinists＇Tools，viz．ongines and hand laches，iro planing and vertical drilling machines，outting en gines， s．otting machines，universal chucks，$x$ c．Car penters＇Tools－mortising and tennoning machinge wood planing machies，\＆o．Cotton Ging，hand ard power，CarverWashburn\＆Coo＇s Patent．Steam En   

## SCRANTON \＆e PARSHLEY，Tool Builders

 Planers ready to ship，by the 1st of Feh，that willplane9 feet long， 31 inches wide．and 24 inches high ith angle feed，counter shaft，pullies，and hanger ver $5,0001 \mathrm{bs}$ ．；alizo 2 power planers plate，and weig feet long， 22 in．wide，and 20 in．high，with counte
shatit， These planers are es per cent．lower than any other
built．Cuts can be had by addressing as above pos
paid．
19tf

## LINEN AND HEMP MACHINERY．－－I am

 rotted hemp or flax ；also for making rope or bagging
of unrotted hemp－the same machinery which I am


GROSHON＇S PATENT CORN PLANTER
 ific Ammerican，desires to dispose of Stati，County，
or Town right on reasonable torms．Address $J$ ．P．
GROSHON，Yonkers，N．Y．，poat－paid．The Groshon，Yonkers，N．Y．，post－paid．The inven
tion has been awarded premiums from the American
Institute and State Fair．
24．
T RON FOUNDERS MATERIALS－viz．，fine oapatone and Black Lead Facings of approved qual
Iy．
Iron and brams founders＇superior Moud ity，Iron and brass founders＇superior Mouldin
Sand，Fire Clay，Fire Band，and Kaolin；alioo bes
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