ing lip to be let into the inside of the jamb, and held by crews, which, when the door is closed, are covered by it edge. On the back of the catch, is also another projection through which one or more screws pass into the casing These screiss resist the shock of the spring bolt of the lock and those on the inside of the jamb the strain upon the door itself, in a direction at right angles to their leng th. Thus it will be seen that the catch is secure against all chance of accidental displacement
It was patented through the Scientific Amcrican Patent Agency May 21, 1867, by George W. Da Cunha, who may be addressed relative thereto at 311 West 36th street, New York City.

## "Portor Spare that Trunk.,

The Philadelphia Ledger says-and we know it is so-for we went traveling once, that at this season of the year the above is a daily and hourly request at the stations on all great lines of railway; but it is by far too often a vain request or down goes the trunk with a crash-the lock is broken an he contents of the unfortunate receptacle are scattered ove the ground to the dismay of the orner and alarm of othe ravelers around, who are left to anticipate a similar mishap to their own baggage. If the sufferer be a lady, and, as hap pens every now and then, without a male escort, she is obliged to look helplessly at her dresses and articles of toilette rolled in the dust and dirt ; and if gathered up and stowed a way in the trunk by some good-natured person near, they are in a sorry plight. The porter or bagage man in place of apolo gizing for the mischief which he has carelessly done, wil most likely be heard to growl and mutter words of insolence rights. Baggage-masters and their assistants are often equally as reckless as the surly porter, of a decent regard for the pro perty entrusted to their charge, as shown in the way in which they toss our trunks and other luggage, or throw them from one part of the car to another. Ladies are not the only sufferers by this abominable practice. It may be alleged that these cases are exceptional, and of rare occurrence. Most travelers will tell us, in reply, they are incidents witnessed on every long line of railroad, and especially in the summer months, when so many leave their homes in pursuit of health and pleasure. Very pleasant indeed to have one's trunk
smashed and clothes spoiled! There seems to be a fixed determination, on the part of porters who carry luggage to steamboats ancl depots, and from them to hotels, to test the strength of trunks, and as far as in their power, snap the iron bands, to break off straps, which they seize held of in place of the handles, and to wrench hasps and bolts of locks from their fastenings. There is an apparent trial to ascertain which has the greatest power of resistence-the trunk, or the pavement, or the platform, when the first isthrown down as
if it were in the performance of some gymnastic feat for a if it were in the performance of some gymnastic feat for a
wager. Is it not time that there should be a class of civized trunk carriers-of men who understand that they shonld be careful of goods intrusted to their care.

## Now Base for Artificial Teeth.

Dr. G. F. J. Colburn, of Newrark, N. J., has invented a sub stitute for rubber in dentistry, which promises to be of much value to the profession. It is in reality a cement of which the value to the profession. It is in reality a cement of which the
mineral asbestos is one of the ingredients. Asbestos is a mineral asbestos is one of the ingredients. Asbestos is a
very peculiar substance. It is exceedingly light, and so very fibrous in its nature that it may be spun and woven like cloth, in which condition it resists fire, water, and many of the acids with complete success. Taking advantage of these natural qualities Dr. Colburn has, by long study, discovered additional substances, which, when united, form qn artificial base that possesses remarkable toughness, adherence strength and lightness. The ease and freedom with which it can be molded is a strong recommendation. It can be readily applied to gold, platinum and other plates. We have seen some futiful. This new base contains no ingredients in-
truly beautifer jurious to the health of the mouth or system. It is not af jurious to the health of the mouth or system.
fected by acid secretions, is free from all taste, and is inodor fected by acid secretions, is free from all taste, and is inodor-
ous. We hope that its merits will be thoroughly tested. Patents have been allowed.

## Agricultural.

There are 23 applicants for the position of Commissioner of Agriculture, made vacant by the death of the Hon. I. Newton, viz.: Norton S. Townshend of Ohio ; John A. Warder of Cincinnati; Thomas Brown of Ohio; Col. Capron of Illinois; the Hon. John B. Clark of Missouri ; the Hon. James Birney of Michigan ; the Hon. L. Clandler Ball of New York F. M. Blair of Washington, D. C.; William H. Ludlow of New York; Oliver H. Kelly of Minnesota ; A. S. Paddock of Nebraska; the Hon. James R. Hubbell of Ohio; Isaac Newton, jr., of Pennsylvania ; Thomas P. Robb and Solsom Dorsett of Illinois ; E. C. Wilson of Pennsylvania ; R. J Powell, John H. Klippart of Ohio ; the Hon. Frederick Holbrook of Vermont; James $\mathbf{S}$. Grinnell of Massachusetts; William H. Russell of Washington; the Hon. W. T. Lemosy of Virginia, and the Hon. E. H. Hyde of Connecticut.

## business and mantacturing ttems.

The capital invested in agriculture in England amounts to $£ 3,311,000,000$, returning a proff of 13 per cent.; the capital invested in manufactures 1 is
sa13,000.00, and the annual profit in 120 per cent. s213,000,000, and the annual proft tis 120 per cent.
The French ladies spend 8,000,000 francs per year for corsets, $15,000,00$ for
gloves, and $10,000,000$ for bonnets. False diamonds coss them $1,800,00$ france gloves, and $10,000,000$ for bonnets. False diamonds cost them $1,800,00$ ofrancs,
talse teet $1,50,000$, Flass eyes 84,000 , masuuerade dresses 73,000 , perfumery talse teeth 1,500,000, glass eyee 84,000, m maquerade dreses 733,000,
and cosmetics $22,000,000$, Pans $5,000,000$, artiflicial fowers $28,000,000$.
The directors of a rallroad in New Jersey aresaid to haveoffered to parties $\underset{\substack{\text { wharin } \\ \text { Yno }}}{ }$

Since the year 1861, there have been sunk in the United States 7,930 on
vielding a total product of about $11,640,670$ barrels of crude petroleum The universal beliefin abundant crops this year, has brought a class of sp The universal beliefin abundant crops this year, has brought a class of spec
ulators into the field $\begin{aligned} & \text { who have bought up all the grain bags in market, much }\end{aligned}$ to the disgust of the farmers. The market for reapers and mo
bocome quite active in preparation for reaping the new crop.
The works of the Boston Belting Company, at Roxbury, Mass., the larges establisbment of the kind in the country, covers five acres of land and con
tantiy employ 150 hands. Packing for machinery, engine hose, and tubing stantly employ 150 hands. Packing for machinery, engine hose, and tubing,
are among its products. The consumption of stock at the present dull season are among its products.
Watch chains are now made by machinery by the pioneer firm in this lin in New England-Sackett, Davis \& Co.. of R. I. The machine is their own in
vention, and ispronounced one of the most ingenious and elaborate pleces o work ever devised. By means of it bar gold is transformed rapidly and without noise into the most delicate, or substantial fob and vest patterns of chains.
In the exportation of conl, Erie, Pa., ranks second in the United States
ver 250,000 tuns was shipped Irom this portduring the year ending Jan 1 1st Ver 250,000 tuns was shipped from this port during the year ending Jan $18 t$ 1867. The bitnminous coal is taken to ports on the upper lakes; principall
to Chicago. The return freights arc made up from Lake Saperior copper. The projected railroad from Atlanta, Ga., to Decatur, Ala., whencompleted Memphis and Charlesion.
The Chicago tunnel cleared forty-six thousand dollars for the contractor he project of a great park at Chicago was defeated at the recent election. Sargent \& Co., of New Haven, have the largest hardware manufactory in
he count try, employing 800 hands, and turning out 4000 different kind of art les, valued at from $\$ 1,000,000$ to $\$ 7,000,000$ per year.
English authorities estimate the proportion of passengers killed in Great
Britain by railway accidents, as only one in four millions; the number of emBritain by railway accidents, as only one in four millions;
loyees killed is very much larger than that of passengers.
The American Steel Company will soon erect works at East Bridgeport, fo he manufacture of cast steel.
A company of capitalists are abo
J., for the manufacture of nalls.
The Boston and Worcester rallroad, on one day during the recent visit o the President to the former city, carried more than 21,000 passengers, the largest number ever transported over the road in a single day. Not one of
these was injured, nor was there an engine or car off the track. The super. hese was injured, nor was there an engine or car off the track. The supe are, fidelity and attention on this occasion.
A road locomotive was successfully tried in the streets of Rome, recently Pontifcial staff.
At St. Anthon''sFalis, Minn., there are six mille, each of which turn out $, 000,000$ to $12,000,000$ feet long lumber, per year. Last year $30,000,000$ shingle were manufactured in this vicinity. The flour mills at this point have a ca

## Cefitotial summary.

deates by Chloroform.-As early as 1859 Barrier de Lyon ascertaine hat there had been over two hundred recorded deaths from the administra-
on of chlorotorm as an anesthetic. In the next five years, Diday renorte-iventy-oneregistered cases, intic. In the next five years, Diday reported lone. Some cases, like that at Bellevue Hospital last winter, could not be stributed to any impurity ot the article or imperfection in the administraany of hisetherized ones. Unilke ether, the action of chloroform continues after its application is stopped.
Gigantic omnibuses, on a new model, have been constructed in Paris, hat upward of fifty persons can be seated on the roof, and they constitute kind of traveling grand stand.
California Marble.-A pure white marble of a superior polish, and rival
ane the finest Italian, has been discovered near Colfax, Cal, and only twill miles from the Paciflc Railroad.
A lover of potators.-A wealthy ci:izen of Berlin has applied to to Drake, as the introducer of the potato into Europe, and offers to subscribe \$11,270 toward it.
Salmonin a dstralia.-The latest experiment in pisciculture has been the raising of the salmon in the river Derwent. Three years since the frst batch
of salmon ova arrived on those shores, having been transported sixtcen thou and miles on ice. After this protracted journey the fish hatched from th ra, were tnrned out into the river, and now the iohabitants are rejoicing
ver
A Monstre Cererf tree now growing in Reading township, Ohio, ha Atained the hight of 80 feet, and is four feet one inch in diameter. It is of te "black heart" variety, and the seed was brought from Berks County
Pa., in the year 1817.
Parisian Pine A pplessare made by baturating turrips with a sirup whic
the confectioners know very well how to manufacture. The resulting frit ise confectioners know very well how to manufacture. The resulting fruit In this city, a few days since, it was testified in court that the jellies sold as made from strawberry, pineapple, and other fruits were all formed out of apple jelly, colored and flavored with essences to suit the name.
SWitzerland has $3,500,000$ inhabitants and 345 scientific and literary publi cations, while France, with ten times the population, has but about 500 jour
nals and magazines. The solution of this is in the fact that in Switzerland he people all receive some education, and consequently can read, and take he papers, while in France less than one half can read
Transplanting Full-grown trers.-Thirty beautiful elms fully forty ceet in hight, were removed from their native forests, and replanted in fron of the site of Congress Hall at Saratoga, to take the place of the trees de stroyed by fire. They are now in full leaf and appear to be thriving ander
this singular treatment. The same thing has been successfully accomplished in Scotland, also in Paris,
Tie bani of england has $30,000,000$ in gold coin now on hand, there bein no call for it, notwithstanding the low rate of interest. This is owing to dull
ness in business, and the falling off in the foreign trade, which has been ten er cent sunce September las:
Seeep-shearing by Wind.-A man in Wisconsin has a patent sheep-shear ing machine which operates just llke a reaper or a mower, and mows a swath engine in the handle, which is to be driven by a force pump or bellows for Wind into it by a flexible tube.-Beaver Dam (Wis.) Citizen,

A new method of vitrifying the surface of iron has recently been intro duced in Paris. Instead of covering the surface of the fron according to the usual method with a very fusible glass in powder and then bringing the iron to a red heat. the materials of the glass are lald upon the iron, which the iron be -
until perfect vitrification takes place. The consequence is that the until perfect vitrification takes plsce. The consequence is that the iron be
comes oxydized, and combining with the silicic acid, theiron and glass form one substance. The coating may be as thick as desired, but it is found in practice that a thick coat of glass soon breaks away, while a thin one lasts
for a long time. The method is being applied or tried upon armor plates for fora lon
ships.
The Strawberry growers of Vineland, N. J., during the seasonjust ended ralsed nearly 278,000 quarts of strawberries, valued at $\$ 3,000$. Of these, 68,000
quare consumed or canned at home, and the balance were shipped to Philadelphia, New York, and other points. . An Ohiof ruitgrower succeeded this year in raising one bushel, three pecty, and three quarts ofatraw berries from a Bquare rod of ground.

A Room FOLL of Cold.-Pure gold is nineteen times as heavy as wator and as a cubic foot of the latter weighs a thoucand ounces avoirdupois, the more than eighteen dollars per ounce, or the whole would be worth a little more than a third of a million dollars. The amount of the preciousmetal now existing is estimated at $\$ 5,950,000,000$, in value. If now this was melted, the resulting mass would have nearly 660 cubicyards, and might
room five yards higb, eight yards wide and sixteen yards long.

Sowr beef which was deposited in tins beneath a heap of stones in Spitz bergen, by Capt. Parry, in 1827, was recentlydiscovered, and a portion was
cooked and eaten at a supper in Stocklholm, after being preserved for forty

Miners' Lamps.-Notwithstanding that every English miner who is d tected in unlocking his safety lamp is liable by law to three months' impris. onment, the offense is committed with impunity by means of false keys. A mple plan has been invented by a manufacturcr of these lamps, for sealin em without using any lock. When the staple has been put down over the
ye, a emall leaden pin is inserted in the latter, hen being placed undera hor zontal press fitted with two dies, the shank of the plug is formed into a head, and both heads are impressed by the dies withany lettering or device.
Panisians are fond of confectionery. According to the Chamber of Con
Devilue has lately made the observation that the addition of a little zinc malgam to ordinary bolder makes it applicable at low temperatures to uicksilver would not be objectionable.

The Seventern.fear Locuets have made their appearance over a belt of country, just northwest of Wilkesboro, N. C., extending far northeast an confrmation of the claim3 of these insects to their popular name, that thi dentical strctch of country was visited by them in 1950 and not since.
Francri realizes over seven million dollars annually from the door and the sale of gunpowder, abont two and a quarter millions. The sum o
over forty-bve millions dollars accrues from the sale of tobacco alone. For he administration and collection of the revenus she actually pays nearl rty million dollars.

Fejiale labor.-In Itaiy about one third of the whole number of laborer engaged in agricultaral pursuits are women. In her manutactories $1,692,740$ remales and $1,379.605$ males find employment. Out of 531,435 artists, nearl one fourth aro women. There are 257,407 remale landed proprietors there,
and 313,497 maid servants. In France nearly one half the labor of almost all and 313,997 maid servants. In F
Tef Panama Railwat.-Since the construction of this road across the Isthmus it has carried nearly 400,000 passengers and $\$ 675,000,000$ of treasure shipments over the road are cradually declining and most of the silve shipments over the road are gradually declining, and most of the silve
transported is shipped to the isthmus from the Pacific coast of South Amer ica. Of freight, theroad has transported 614,535 tuns, but this year it is estmated the trafic will amount to 150,000 tuns. America now contross the
road, which runs through the territory of New Granada, but England is mak road, which runs through the territory of
ing great exertions to get posscssion of it.
SINCE 1837 there have been establiphed throughout the world 160,000 mile telegraph lines, comprising 400,000 miles of wire, and workiug throug nearly 14,000 stations. The total ledgh of ins. miles. The
Eggland.
Tel Continental Hotel at Long Branch, is 700 feet long. A continuou piazza fronting the ocean extends its whole length
I'r is calculated that 64,000 porsons wear decorations of the Legion a lonor. A great legion, but no remarkable honor.

## zecent gumerican aud forcign zetats.


Brice Kiln.-Andrew S. McBride, St. Louis, Mo.-This invention relate a new and improved brick kiln, so constructed that either coal or wood may be used as a fuel, and by it a great saving in fuel is effected and th aring the kiln constructed with ascries of 1 . Mhe invention consists in tending its whole length, with the smoke stacks at each cnd, and having the op of the kiln constructed of a series of dampers or adjustableslats, whereby de advantages above described are obtained.
Gang Plow.-Robert R. Grives, Montgomery, Ala. Patented July 0th. 1867.-In this invention the dip of the plow is regulated, and means arc pro vided by which upon enco
without backing the team.
Broom Head.-Lewis Allen, Berkley Springs, West Va. Patent dated July age of the sewing twine and with a confining band, also pierced and retained on the socket by grooves in the latter.
Sawrisa Maceins.-James R. Logan, Bellmore, Ind.-This invention re. of the carriass-cut sawing machine and consisis in a peculiar construction of the carriage on which the machine is mounted, whereby the frame of the
machine may be retained in a horizontal position when placed on uneven or inclined ground. The improvement also consists in a modification of the construction of the standard or support to which the saw bar is attached
when sawing felled timber ; and, further, in the employment or use of a pe cullar saw gaide.
Strering apparatub.-Thomas W. Murray, New York City.-This in STERRING Apparatus.-. Lomas w. Murray, New York Chy.-This in-
ventionrelates to a steering apparatus to be applied to the head of the rud
der post of a vessel der post of a vessel, whereby a vers.
ism is obtained for the purpose.
Stripping Hides from beeves and oterer animals.-Christopher Brühl, Greenpoint, N. Y.-This invention relates to a useful machine for stripping hides from beeves and other animals, it being designed tosupersede the manual prosecution of such work which
considerable expenditure of time and labor.
raking attachment for Reaperb.-John C.Hall, Monroe, Wig.-This invention has for its object to farnish an improved selfr-raking attachment
forreapers which shall be so constructed and arranged as to imitate the natural movements in raking the grain from the reaper by hand
Masufacture of bona Handless for Parasols, Canrs, Eto.-Joseph
Harvey, Philadelpha, Pa.-Bone has long been used as a material for the Harvey, Philadelphia, Pa.- Bone has long been used as a material for the manufacture of parasol, umbrella, and otner handles, but it is not employed
as extensively asit would be, provided sufflcient stock could be obtained of as extensively asit would be, provided sufficient stock could be obtained of
proper size. This invention is to obviate this diffculty; it consists in con structing a bone handle of pieces connected together in a novel and very secure manner which will admilt of a handle of the largest required sizs
being made tor various articles, including those enumerated. Governor and Stop Motion.-F. J. Nutz and Philip Estes, Leavenworth Kansas.-This invention consists in an arrangement whereby the ordinary
centrifugal governor is controled in its action and assisted to perform its centrifugal governor is controled in its action and assisted to perform its proper functions as a regulator of motion, and also in a devi.
closing the valve and stopping the engine in case of accident.
Laddrr.-Benjamin F. Turner, Bridgeton, N. J.-This invention relates an improvement in ladders, for connecting several short lengths of separate
ladders, in such manner that they may be readily and safely extended to be used asonelong ladder, for a high elevation, or may be doubled upon each ther to be used as a scafloid, or as a stage ladder, and thus be employed for

LAMP BUNNER- William Robinson, Funkville, Pa.-This invention relates
to an improvement in the construction or lamp burners and consists in mak. ing the cone or deflector movable by raising and lowering it within the outer perforated frame or case of
tbe top of the wick tube.
Coating Iron and Steri wite Cast Iron.-James Rigg, Iowa Falls,
Iowa.-This invention relates to a method of producing a hard surface on roo and steel, and it consists in coating the said metals with cast iron, ther by producing a surface hard as the hardest steel, and which is susceptible of a high polish.
Later TooL.-John C. Shackelton, Lawrence, Mass.-This invention relates to the manner in which a turning tool tor lathes, in iron turning, is construct ed and secured to the shank or tool holder, and it consists in forming the
shank with a head in such a manner that the cutting tool is firmly secured to ts ard made adfustable by screws.
Mop Wringer.-A. G. Starkweather, Burlington, Vt.-This invention has for its object to furnisha neat. simple, and cheap device by means of which mops may $\begin{aligned} & \text { the hand } 3 \text {. }\end{aligned}$
animal Trap.-L. V. Badger, Chicago, Ill.-This invention has for its
object to furnish an improved rat trap, simple in construction, not liable to to get out of order, and reliable in operation, and one which the rat, by es aping into the cage, will again set
Corton Gnr.-A. Fessenden, Beaufort, S. C.-This invention relatesto
cotton gin of that class in which the cotion is taken from a stationary plat cotton gin of that class in which the cotton is taken from a stationary plat
form and is carried between two rollers, which are so close together that the seed cannot pass through between them. The invention consists in the device for hanging the lower roller and adjucting it in the proper position. Also, in onnection therewith, in an adjustable feed platform. Finally, in the shape of a self-adjusting seed-clipper or knife, and in the manner of hanging the come, so that it will assist
Spring-bed botrom and Bedstead.-E. Kreighoff, Rochester, N. Y.-This anged that it can be easily removed or replaced when desired. When to ar used as a bed botton, the device is combined with a bedstead, which can also be easily taken to pieces, and to which it is secured in a novel and practical anner.
Woos Screw.-H. A. Harvey, New York City.-The object of this inven.年 is to construct the head or a glele-ponted wod sct or a globula or spheroidal form, and to provide for driving it without cuiting the orcli
Spice Mill.-H. W. Oliver, New Haven, Ct.-Chis invention relates to a ew arrangcment for keeping and grinding sploes of various kinds, and the ders in such a manner that while the tubes severally contain different kind of spices, either one may be ground separately from the rest.
Macinery for Making Butc Hingers.-Adrian Rais, Waterbury, Ct.of butt hinges, and consists in mechanism so constructed and arranged that the two match blanks of a hinge are conveyed by automatic devices from the milling wheels or disks, and thence to a central point where the leave of the two match blanks are joined or interlocked, when another automatic device inserts the nail or rivet and the butt hinge is finished and dis charzed.
Water Elevator.-3amuel C. Lewis, Woodbridge, Mich.-This invention has for its object to furnish an improved apparatus for drawing water from wells, cisterns, etc.
Gate.-Ebenezer Young, Camden Center, Mich.-This invention has fo its object to furnish an improved gate s) constructed and arranged that
may be raised and will remain suspended so as to swing over snow or otne obstructions, and so that its forwardend may be lowered to rest upon the ground and hold the gate stationary in any position in which it may be placed.
Axes and Hatcerets.-Daniel W. Callum, Laoni, Ill.-This invention re
lates to an improved form of ax, and consists in giving the edge a semicrcular shape.
rat Thap.-George Irwin, Elizabethtown, Ky.-This invention has for it object to furnish an improved rat trap so constructed and arranged that the
caught rat, by locking himselfin theinner apartment will again get the trap
Waserer and Wringir.-Wm. Bicknell, Hartford, Ne.-This inventio relates to a machine for washing and wringing clothes, and consists in the use of a tub in which a perforated reciprocating dasher is arranged, the the tub can be pressed between the dasher and the cover and are then submerged in water, and pressed again, until they are perfectly clean. They can then be wrung by pressing them between the dasher and the cover, and
securing the former in place, graduallv increasing the pressure until the securing the former in place, graduallv increasing the pressure until the
water is removed from the clothes. The cover can be removed if desired, water is removed from the cloth
and can be used as a wash board.
Washing Maciing--Samuel Brackett, Port Ifuron, Mich.-This invention relates to a washing machine in which a flexible concave is so arranged in the sadd roller, thereby forming a cylinder of friction rollers around the clothes. The latter are secured upon the cylinder and revolve with the same within the fifxible cylinder.
Carper Stretcher.-William W. Taylor, Newark, N. J.--This invention has for its object to furnish an improved instrument by means of which a car
pet may be stretched upon the floor and held in place while the nails ar pet may be stre
being applied.
Tog Trimmer.--Albertv. Hill, Limestone, N. Y.--This invention has for it object tof urnish an improved instrument by means of whic
tug may be conveniently, accurately, and quickly trimmed.
Clotilis Dryer.--Henry Gransden, Dubuque, Iowa.-This invention con arms are securely attached to the pole, and the cord or rope upon while th clothes arc hung are attached to the arms, the whole may be securely folded up.
Petrolevi Filter.-J.Henry Smith, Pittsburg, Pa.--This invention re lates to $a$ method of filtering and purifying petroleum, and it consists in pass ing it through flltering pans containing proper filtering materials.
Car Coupling.-James Depeu, Peekskill, , X. Y.-This invention relates to
aself-operating car coupling in strong bar, having a head at each end. Thishead, when inserted in the coupng box, ratses the hook-shaped front end of a pivoted bar, whioh as soon a the head has passed under the hooks, drops down over the head and loeke the coupling box. For uncoupling the link, the front end of the hooked ba ust be rassed, which can be done in various ways,
burglar alarm Gun.-John Wilson, Anderson Court House, S. C.-This nvention relates to a burglar alarm that consists of a swiveled horizonta gun barrel, so arranged on a frame that the said barrel can revolve on
its vertical support. Suitable stops are arranged around the barrel, which are connected wth wires that are spread across the room in which the apparatu stands, so that when a burglar or other party not acquainted with the ar rangement of the wires, comes in oontact with one of the same, the stop
which holds the shait will be released, and the gun will swing around and which holds the shait will be released, and the gun will swing around and
strike against a stop, and point towards the direction in whith the wire is strike against a stop, and point towards
stretched, whereby it will be discluarged,
Spring beds, Skats, and Covches.-DwightBabcock, Seneoa Falls, N. T Thisinvention relates to a new manner of securing the upper slat of a spring bed bottom, seat, or couch to the spiral springs, and consiste in the use of a
ribbon which is laid across the slats, above a row of sprinks, and which is passed under the upper winding of each spring. thereby connecting and se curelyuniting the slats to the springs without the use of other fastenings or
devices.

This invention relates to an apparatus wherein woo of any description Thether sawed or split into lumber or not, may be steamed and dried, so
o be thorougnly sesonod. Later for Tu
Later for Turning Wagon axles.-J. E. Cromwell, Jackson, mich.axles tbat run in the wheel, and consists in the combination of saws and cut ters that work in conjunction with each other in forming and giving the proper shape to the arm of the axle. It also consists in the novel arran $e$ e. ment of the feed works, which operate against a pattern
by the machine in the most accurate and precise manner
Cream Strainer.-George J. Bennett, Homer, n. f.--This invention re lates to a cream strainer, which consists of a cylindrical vessel with concave easily removed or put on. A disk, having inclined wings similar to those of a screw propeller, is suspended directly above the strainer from a vertica shaft, and forces the cream through the meshes of the strainer when the shaft
is revolved by a crank or other fuitable device. Below the strainer is serevolved by a crank or other cuitable device. Below the strainer is se cured to tre bottom of the vessel an inverted funnel, which protects the hrough the strainer.
Door holder.--Edmumd Huddart, Prairie du Sac, Wis.-This invention onsists in the construction and arrangement of parts of a door holder, in
uch a manner that one portion being attached to a door and the other part to the wall, the door may be held open, and in one position by friction.

## Gusivers to Corrtespoudeuts.



## 

J. N. H., of $\mathrm{Pa}-\mathrm{We}$ think yoiu will find pitch to be suitable cemen
sides of wood.
Wides of wood.
W. A., of Pa., suggests that instead of graduating the arcs of surveying and mathematical instruments on a flat surface, that the
degrees minutes and seconds be determined by a train of gearing which degrees minutesaneration by the movable part of the instrument. The reading may be exhibited on a dial plate resembling a clock face or other wise.
C. G., of Kansas.-You can procure Smee's and Napier's Electro-Metalurgy of J. Wiley and Son of this city. The cost of Smee battery of a size suitablefor electro-metallurgy, is about $\$ 5$ per cup. You
can procure an outfit of apparatus and materials of Butler \& Smith Broome street, this city
H., of C. W.-Magnetic ron ore is found in great abun dance in America. But specimens which have strong polarity are quit magnets, and the latter (loadstones), are now only objects of curiosity fo a museum or a mineralogical cabinet. For information on magnetism consult Ganot's or Silliman's Physics.
H. T. B., of Iowa.- "What is the best way to melt indiarubber, also where can I procure some of the pure gum?" India-rubbe may be melted in a metallic or earthen vessel, and the care to be taken io that the heat be applied gradually and slowly It melts at about $248^{\circ}$. O a semi-fluid adhesive state. Raw rubber can be procured at any of the rubber factorles, and atsome of the rubber stores in this city.
E. P., of Pa - "The papers say that if his invention is per fected, it will revolutionize all previous systrms." There's the rab, the
success of the project depends upon its perfection. If our dreams were realities we might all be kings. We know nothing of the invention to realities wee migh
which you allude.
N. K. S., of Vt.-For japanning, use the best quality of copa T
the the earth is not round like a ball but flat like a mill stone. A. T. secms
to have been handled roughly and appeals to us for assistancc. It is a pretty quarrel as it stands and we prefer not to interfere. But as some encouragement to hold on, we remind him tha。 at last the truth is apt to
R. N. D., of O.-Chalk has not yet been found in America. R G. D., of Mo.-Carbolic acid isnow extensively used here as a disinfectant, and is approved by the board oi lealth and by the
R. V. W., of R. I.-Alkali is an essential ingredient of soap, and we think, you are wasting your time in looking for a substitute fo
it. E. W. N., of Mass.-We recommend you to get "The Draftsman's Book," published by H. C. Baird. 406 Walnut street, Phila
delphia. You should procure other books in proporiton to your mean and to the extent you desire to pursue the in prect
T. L., of Mo.-The pressure on the pipe leading water from the pump into a boller is greater than the pressure in the boiler. Other W. P. M., of Ill.-"We have a saw mill here (Ullin) owned by J. Bell which sawed on the 26th of June 42 poplar logs making 40.807 ret,
hours and 8 minutes." Mr. Bell appears to be the "top sawyer" of th J. H. McC
H. McC., of Ill., sends a recipe for a cement which he Ands useful for vulcanized rubber or "anything eisc." Take best glue
4 oz., isinglass, 2 oz. and dissolve in mild ale, in a glue kettle, to the con cold itre thin glue. Then stir in half oz., well boiled hise firm When used it is to be dissolved in a suitable quantity of oil. It is an ex R .
J. R., of N. Y., made a solution of chloride of silver in cyanide of potassium towhich be added whiting. The mixture was pu into twobottles, when shortly in one bottle it became reddish, while in of potassium is a very powerfol solvent of organic and metallic compounds and the foreign matter to produce the color was introduced by some ac cident such as a dirty bottle or cork, etc.
J. B., of Iowa.-It is very doubtful if any of the processes of preserving wood by means of metallic salts are practicable for shingles
in this country. The creosoting process (treatment with dead oll or coal tar) is however, economical and cheap. The strongest objection to it it that th
D. S. C., of Mo.-A practical lithographer of this city says he is unable togive an opinion of the value of lithographic stone excepp
an actual trial, and the sample you send is too small for the purpose. The sample is favorable.
F. G. S., of Mass.-Your plan of measuring the curvature of the earth is correct and ingenious. The angle forised by plumb lines
erected at the short distances from each other is so small that it cannot be determined with desirable accuracy
A. G. C., of N. Y.-We are not a ware that an ink is on sale, which fadescompletely in a short tlme after it has been used in writing
with. It would not be very diffeult, howeyer to make such an ink.
J. Mc., of Ct., R.A.D., of Wis., page7 says, people out ther claim that a raft oflumber will travel faster than the current, etc. I know the people who say so, are right. The surface of a ruaning stream is an
inclined plane, and heavy bodies floating on its surface slide down the inclned plane, and heavy bodies floating on its surface slide down the incline, and the heavier of two raftswill dri:t the faster. 1 am an old boat the middle of the stream, and if the ratt be in it, the raft will travel faste than the current at its side. Also it often happens that the current is a littleswifter just below the sarface, and for this reason a heavy body might float more rapidly than one which did not sink below the surface
W. P., of N. Y., has been told that a perfect sphere when elevated high in the air appears to the eye an oblate spheroid, and that the form to compensate for the optical illusion. Mercury is a solvent for brass, and hence when rubbed on a brass wire, the wire becomes brittle. Observe how alump of sugar becomes softer when wetted.
. L. G. F., of Mass.-The sterility of land in a well watered tropical region is generally due to the impregnation of the soil with
sulphate of copper or tron. . . Ooal is always associated with cer taln geological strata which are so disposed that they form a basin fo the coal deposit. A knowledge of these facts is very important in making explor make the best quality of fine bricks.
failto
T. H. W., of N. Y.-For a given head and supply of water the larger the water wheel the better.

## gusinfs and entgnat.

## Thecharge for insertion under this head ts 50 cents a line.

Machines for Rossing Oak Tan Bark. Send maker's address Manufacturers of Galvanized Wire Cloth and Hoop Iron please
M. R. S., of Mo. The crystals of a metallic appearance in A. B. is informed
. B. is infort Wanted-A purchaser of my patent-right ćlothes bars and wardrobe hook for the New England States, the best
made. Address M. D. Hotchkiss, Sheboygan Falls, Wis,
Wanted-Circulars and terms of manufacturers and dealers in sewing machines. Circulars and torms of dealers in useful invention and novelties. Address of parties who manufacture small patent articles w. Clare Anderson, Agent, St Louis, Mo.

Manufacturars of Peat Charcoal send their address to C Browning, Rush Run, Ohio.
Wanted-Address of Toy Manufacturers. Address Lock Box 28, Des Moines, Iowa.
Wanted-Best Clover Seed Gatherer. Manufacturers send circular and price list to Gillespic, Watkins \& Co.. Ohattanooga, Eamlto county, East Tennessee

## EXTENSION NOTLCES

Ephraim L. Pratt, of Boston, Mass., having petitioned tor the extersion of patent granted to him the 4th day of October, 1855, for an improvement in machines for paring apples, for seven years from he explration of said pat
ent, which takes place on the 4th day of October, 1867 , it is ordered that the said petition be heard at the Patent Oflle on Monday, the 16th day of Sedtember next.
Harvey Lull, of Hoboken, N. J., haviog petitioned for the extension of a
patent granted to him the 31st day of January, 1854, and antedated January 2 patent granted to him the 31 st day of January, 1854, and antedated January 2 1854, for an improvement in shutter hinges, for seven vears from the expira-
ton of said patent, which takesplace on the $2 d$ day of January, 1868 , it is or. red that the said petition be heard at the Patent Offle on Monday, the 16th day of September next.
Joshua Gibbs, of Canton, Ohio, having petitioned for the extension of a patent granted to him the 4th day of October, 185s, for an improvement in machine for grinding plow castings, for seven years from the expiration of said patent, which takes place on the 4th day of October. 1867, tis is ordered
that the said petition be heard at the Patent effice on Monday, the 16 th day or septrinber :evert.

PATENT OFFICE DECISIONS...-WHAT CONSTITUTES A
PATENTABLE CONBINATION


Inventions Patented in England by Americans.
[Condensed from the" "Journal of the Commssionars ot Patents."] PROVISIONAL PROTECTION FOR SIX MONTHS.
 1,440.-Billiard Table.-Hugh W. Collender, New York City. May
1,475.-Triss. 1,475.-Trisse-Wm. Pomoroy, New York City. May 18, 1867.
ity. May 20,1867 ,
 1,547.-STEAM GENERATOR-Richard J. Nunn, Savannah, Ga. Mny 24,186 1.551- Emproideniva Apparates for Sewiwg Machines. $\rightarrow$ Louis Morris



