Steam Valve.-R. A. Filkins, N. rth Adams, Mass.-This invention relates down with pertect ease, while it closes the ports perteclly steam and air tight. The iuvention consists of a plug or valve which is made of two sec tions fitted around a tapering stem that is smallest at its lower end, and of
two fingers grooved between the sections. The fingers catcl under a shoulder of the stem; but when the valve is on its seat, tuey release the stem shoulder of the stem; but when he valve is on its seat, tuey release the stem
and allow it to be furced down between the sections so as to spread them and allow it to be furced down between the sections so as 10 spread
laterally apart. The port boles will thus be most effiectually closed,
W $\Delta^{\prime}$ rer Wherd.-William S. Place, Charleston, Maine.-This invention re-
lates to a water wheel of simple construction whereby the power of the water is obtained both by impact and arity or and lattral pressure.
Prssary.-C. R. Gorgis, Brooklyn, N. Y.-Tisis invention consists of an
india rubber bag or cap provided with a rubber tube, which is to be dis india rabber bag or cap provided with a rubber tube, which is to be disteided by a flat spiral spring when onserted into the vagina; also of an im-
Self-Loading Cart.-G. W. Whitson, Asbville, N. C.-This invention h or its object to furnisb an improved cart, whichsball be so const.
arranged as to be self loading, and which can be easily operated.
NUTMEG Grater - H. H. Barstow, Chicago, Ill.-This invention consists of NUTMEG Grater - H. H. Barstow, Cnicago,
a grating plate placed within a case and sustained b yprings which press the
plate against the nutmeg held between it and the top of the case. The nutplate against the nutmeg held between it and the top of the case. The nuty which it is actuated to and fro in the operation of grinding.
apparates for Loading and Unloading Wagong.-Selah S. Brewster, Manchester, Mich.-Tbis invention consists in providing within the building used for the purpose, near the top, au axle or windlass baving ropes at each winding-up crank shaft conveniently arranged at the side of the building near the floor, whereby the said windlass is operated to raise the box or rack from the wagon, when it maybe suspended till required for use agan,
rate y fastening thecrankshaft so as to holdit.
Cloce Esoapemerns.-J. V. D. Patch, Brownville, Nebraska.-The object
of this invention is to obtain an equable and easy action of tile pallets of a of this invention is to obtain an equable and easy action of tile pallets of a
clock escapement or verge, so-called, and with the minima clock
tion. tion.
Plox Ax.-John C. Conklin, Yorktown, N. Y.-The object of thi
is to provide a sccketforthe insertion of the handie of pick axes.
s to provide asccketfortbe insertion of the handie of pick axes.
Water Wheel.-D. W. Case, Gardey City, Minn. $\rightarrow$ This inven
Water Wherl.-D. W. Case, Gardey City, Minn.-This invention relates
to an iuproverment in water wheels, and it consists in a novel arraveement of an inproverucnt in water wheels, and it consists in a novel arravgement closed, and rindered self-regulating when desired, so as to obtain an improved speed of the wheel.
Boltand Rivet Heading Machuns.-Wm. Melville, Patereon, N, J.-This heads of bolts and rivets, and consists ing the blanks and for formingsthe tion of dies, holders, punch, and caiter, that the desired results can be at tained with simple mechanism and in a short time. The whole marbine operates perfectly automatically, as, atter the various parts have been adjusted
for the production of certain kinds of rivets or bolts, the end of the bar has only to be inserted in the machine whicn titwill be cut and the separatco only to be inserted in the machine whicn it will be c
blank will be held and headed in the desired manner.
Surep Shears.-Hermann Wendt, Elizabetb, N. J.--This invention relates
to the construction of sheep shears, and is an improvement on a process of to the construction of sheep shears, and is an improvement on a process of
construction previously patented by Hermann Wendt and Henry Seymour. The object of the present invention is to obviate the wharing of what ar commonly termed the " etops," which are employed to prevent the blades of entirely of iron, but by this improvement they are formed of steel and iron combined and in such a manner that the process of construction of Wend \& Seymour, alove alluded to, is not interfered with in the least. Henry Seymour \& Co., 52 Beekman street, New York, assignees.
Clottris Wasbing Maobine.-John Pbillips, Jr.Georsetown, Mo.-This
invention relate, to a clothes washing machine invention relate, to a clothes washing machine of that class in which a re-
clproratling rubber is employed for subjecting the clothes to the necessary ciproratling rubber is employed
prescure and rubbing action.
Clasp for Joining beltb.-Benjamin D. Randleman, Port Lou;sa, Iowa -The object of this invention is to provide a simple and effiective clasp for joining the ends of belts. It conssts of the combination of tor ked and
straight links with a pair of hinged plates. Tbe links serveto provide a flex straight links with a pair or hinged plates. Tbe links serveto provide a flexthe bell.
Mincing Clesaver.-Samuel J. Tongue, Pbiladelphia, Pa.-This invention
consists in combining a mincing knife or cutter and a cleaver in such a manconists in combining a mincing knife or cutter and a cleaver in such a man.
ner that one and the same implement may be used either in the capacity of a ner that one and the same implement may be
cleaver or a mincing knife as may be desired.
Cutlery. - A. L Taylor, Springfleld, Vt.-Tbis invention relates to an improviment in cutlery and is more especially designed for table cutlery
snives, for ks, etc. The object ofthe invention is to al knives, for ks, etc, The object oftbe invention is to avold the aiffculty at-
tending the loosening of the bandles on the tangs, whiclis caused chiefly by tending the loosenng of the bandles on the tangs, which is caused chiefly by
the wasiditg of the cutlery in warm water and also to avoid tue loss occathe wasi.hig of the cutlery in warm water and also to avoid tue loss occa-
sioned by the breaking and clecking of the bandles, a contingency of fre-
quent occurrevce when horn, bone, and ivory are used as the stock or mate quent
rial.
t. Combined Cider Mul and Press.-Eli Wangaman, Blairsville, Pa.-The object of this invention is to combine grinding andpressing mechandsm in che same general machine whereby apples,grapes,and otherf fuit may be ground,
and the juice of the same expressed immediateiy by conveying the pomace from the grinding mechanism to the pressing rollers located at some point in the trame conveniently below.
Potatn Digerr.-Arthur Van Norman, Detroit, Mich.-This invention re lates to a pot rep digger, and it consists in the employment of a cylindrical
revolving screen provided with an internal screen, the above parts being used in connection with a scoop and a reciprocating cutter.
Cooring Stove.-Evan O Thomas, Jersey City, N. J.-Th
Cooking STove.-Evan O. Thomas, Jersey City, N. J.-This iovention re-
lates to a cooking and baking stove, which is provided in the oven with a lates to a cooking and baking stove, which is provided in the oven with a
suspended shelf that can be rotated from the outside without requiring the oven to be opened. The above is of oval shape, with a cylindrical or nearly cs linarical baking oven, which is on one end of the stove so that the crescent shaped fire-place fts around balf of the oven.
Spari Arrester.-A. F. Smith, Ellsworth, Matne.-This iuvention relates
to spark arresters, to be applied to the smoke stacks of locomotives, chimto spark arresters, to be applied to the smoke stacks of locomotives, chim-
neys, etc , forthe purpose of preventing escape of sparks therefrom. The neys, etc ,fortbe purpose of preventing escape of sparks therefrom. The
iuvention consists in the peculiar construction of the device, whereby a good or cifcient draught is obtained, to ensure the escape of smose and cinders, at Macuine for Splitting Wood.-Leonard Tilion, Broo This inventlon relates to a macbine for splitting wood, and it consists in the employment of fixed cutters, a reciprocatory hopper and a vibrating bed all arranged to cperate in sucb a manner as to efflect the desired end, in an expeditious and perfect manner.
Bee Hive.-Joseph Cuase, Ripiey, Ohfo.-This invention relates to the
manner of constructing a bee bive, whereby the contents of the hive may be manner of constructing a bee bive, whereby the contents of the hive may be
readly seen, the best protectedfrom theravages of themoth, and the interior of the hive kept at a uniform temperature, or nearly o , being warm in winter and cool in sun.mer.
Surars.-Hermann Wendt, Elizabeth, N. J.--This invention relates to an improvement in shears for general use, and it consists in forming the thnmb
piece of the eye or loop in the handle, through which the thumo passes in plece of the eye or loop in tue handle, hrough wich are a manner that the shears may be ope rated with far greater facility than bitherto; also, in a certain means, whereby the holes, through which the rivet or screw passes to hold the two parts of the shears together, may be formed by punchung instead of drilling, whichis now a necessity, At present rivet holes cannot be punched in consequence of the drop, which welds the
stcel to themalleable cast iron portions, coming in contact in its descent stcel to themalleablecastiron portions, coming in contact in its descent with
the portion of the malleable cast iron through which the rivet or screw the portion of the malleable cast iron through which the rivet or screw preclude punching. This difticulty is fully obviated bjtbis improvement.

## 



A. A. S., of Boston.-Why is spruce better than other woods for sound-boards? Because on account of peculiarties in its textare it is
more sonorous at \#fret and tends to become more so by use, ts resino
 W. M., of Minneapolis.-What is the object of thumbing the vent while loading cannon? It is to prevent fragments of cartriage
E. H., of Mo.-All other things beirg equal the conductive power of ligbtning rods increase with the areas of their cross sections,
Tour conductors are not of the proper shape to nsunte the greatest eflcien cy, and they are not properly ynsulated.
L. H. S., of N. Y.-Your idea is not new and it is for many
A. F. A., of Albany, N. Y.-The water line of a vessel, in order to secure the rreatest speed with the eeast expenditure of force, sbould
form such a curve that the closing together of the water after displace. ment should tend to accelerate its motion, rather than to retard it. A ment sobuld tend to scelerate e tits motion, rather than to retard it. A
water line of the shape you propose, would not admit of such acceleration. W. A. E., of Va.-What is the object of making the hindwheels of a wagon ligher than the others? To bring the bind bo ster to a
cevel with the front one, and to raise the box so as to let the tore wheel level with the front one, and to raise the box so as to tet the fore wheels
finder in turning. The quastion would be more to the point if you asked the reason \#hy the fore wheels were smaller than the hind ones.
G. H. P., of N. Y.-To tin small castings, clean them and boil them with sciaps of block tin in a solution of cre
per them, clean and dip in a solution ot blue virriol.
R. A., of Pa., says: "In your reply to J. B. F., of R. I., page 30, current volume, you say, in a a auction pamp the pressure of the atmos.
phere can raise the water $a$ bout 30 feet without mechanical power; the conphere can raise the water about 30 feet mithout mechanical power ; the con-
cluason is obvious. What do you mean by this? Will the litt pump re.
 suction pump require no force to do the same work if the bucket is 30 feet
above the water? Would it not require the same pper to lift a column above the water? Would it not require the same pnwer to lift a column
of water 30 feet high i whetber the pump is iliting or saction?" 11 our corof water 30 feet high whetber the pump is ilit ting or saction? " it our oor-
respondent would read carefulus the paper he would find that his inquiries respondent would read carefully the paper he would find that this inquirires
are fully answered. O page 23 of the same volume to which he refers
 S. H. of Pa.-The increase of the pipe at the upper end would increase the $\mathbb{H}$ ow, butto calculate the percentage of increase would take too much of our time. You should apply to a hydraulic engineer. S. P., of Ohio -After you have exhausted the air from an air.tiph box, it
-not otherwise.
C. H. H., of Mass.-We have not kept the address of the party w
quest.
J. S. M., of Me.-We are not responsible for the statement to which
pondent.
B., of Mass.-We are of the opinion that the device by wh'ch you propose to regulate theexpansion and contr action of the
wheel of a watcl, possesses knowledige of a patentible character.
. O. B., of Ohio, says that in railroad repairing much labor and money is uselessly expended in packing the eriavel as closely midway
between the rails as at the ends of the sleepers, where the weigut and wear between the rails as at the ends of the sleepers, where the welgut and wear
come. As the gravel is shaken out from under the ralls the sleepers are supported mainly at the middle and the road becomes uneven.
J. B. S., of N. Y.-There is no foundation whatever for the statement that the notes of birds and insects, tbe rippling of brooks and waves, the sound of the wind, etc. follow the intervals of the minor scale.
It in one of those asserti ons repeated by some by reason of some supposed authority. Every good musician, with a sharp well cultivated ear, knows that it is utterly untrue, and those familiar with the science of acoustics declare it absurd
P. D., of Ohio, answers, in regard to the inquiry as to the cause or the variation in the watches of railrond men, that the reasors are, 1st, the want of perfect equilibrium in the balance wheel; 2d, deticient ad justment of lever fork, roller je wel, and plate; 3 d , escape wheel and pallet
lock too hard or too easy. He states that these defects are more common in the fine English escapements than in the American or Swiss watches.解 of the oil, which may also affect the motion, is also menioned by this correspondent as beng caused by the steam, gas, and beat to which the machinists are exposed.
P. C., of Ill.-The sample of copper you sent us was found to contain no traces of sllver. Of gold there were traces, but in so small a quantity that it would not par to take it out. There is no premium offered
for the finding of a large mass of copper. Eight pounds is a very small iece.-much larger pleces are frequently sent to this marke
B. F. H., of Ind.-It is a fact known to all who have had experience in handing heavy glass tubes toat they frequently break, when
they have been rubbed on their interior surface. Glass tubes for steam gages should only be cleaned by wasbing, using bydro chloric or nitric rubbing. The reason of such fracture is that the glass of these tubes is in state of great tension; the inside surface being strectbed, and ready to
crack when the least scratch or abrasion is made on its surface. Some crack when the least scratch or abrasion is made on its surface. Some
standard experiments in natural philosophy illustrate and explain the standard experiments in natural philosopby illustrate and explain the
same thing; for instance, the so-called Bolognese flask and Prince Rupert's glass drops, a description of which may be found in some good text book on physics.

## Wusimbsi and eersonat.

## 1 he chargefor insertion under this head is one dollar a lne.

The patent sweet fern and chemical lacing, as made by J. H. or become rotten.
Greatest invention of the age--a washing boiler by which lothes are wasbed in 4 to 6 minutes. Alive partner wanted to obtain patent Wanted-a situation by a competent manufacturing chemist of three yearseries. Address Box 3051,Su Lous Manufacturers of goods sold by hardward dealers will please address Daniel Clarke, Ipswich, Mass;

To machinists--see advertisement of rule for screw cutting. Where can I get steel casting guards or fingers for harvesters? also, rivets of good quality for the knife sections? also rolled iron in ger bars? What is the relative standing, with agricultural men, of the two
binds of harvester rakes, viz: those, llke Wood's, called platform rake hinds of harvester rakes, viz: those, like Wood's, called platioriu rakes
which remove the grain at rigbt angles to the cutter bar, or those which remove it parallel to the cutter bar, known as sweep rakes? 1. Lancaster, No. 77 N. Paca st. Baltimore, Ma.
Wanted-iron founders to manufacture my patent window curtain fixture
Pittsburgh, Pa.
For sale-the patent right of A. Eagle's machine for mixing compositio
Brookıyn.
Manufacturers of rice cleaners will address M. W. C., care of For descriptive circular of the best grate bar in usc, address Hutchinson \& Laurence, No. 8 Dey st., New York.
Parties wishing to contract for first class brass and composition cast
ford, Me.
Wanted-breech-loading shot guns made on contract, royalty, or shares. Address Box 786, Washıngton, D. C.
Peck's patent drop press. For circulars, address the sole manufacturers, Milo Peck \& Co., New Haven, Conn.
A partuer wanted-a gentleman of integrity and Christian Clisaccer-witla a capital of $\$ 50,000$ to $\$ 100,000$, to invest in
new macbinery. Address L. H. Soule, Mt. Morris, N. Y.
Millstone-dressing diamond machine, simple, effective, and durable. Also, Glazier's diamonds, diamond drills, tools for minihg, and
other purposes. Send stamp for circular. J.Dickingon, 64 Nassau st. N.
Prang's Amcrican chromos for sale at all respectable art For breech-loading shot guns, address C. Parker, Meriden, C t. Winans' boiler powder ( 11 Wall st., N. Y.,) 12 years a standard article for
tended agents.

## NEW PUBLICATIUNS.

Engineer's and Mechanic's Pocket Book.
This valuable handbook, edited by Chas. H. Has well, offlee No. 6, Bowllng
Green, New York, has reacned its twenty. I rit edition. We do not hesitat to say that we bave never before seen so mucl valuable information con pressed into so small a compass. there is scarcely a subject in the eon range of mechanics, hydraulics, hydronamics, steam engineering, and the
collateral sciences. that is not practically treased of in claer and perphinons collateral sciences. that is not practically treated of, in clear and perspicuous style, without those abstract formulas ard demonstrations which rende
larger works of no avail to the ordinary larger works of no avail to the ordinary mechance. By the use of iss tab les
a great saving of labor and time in any kind of work in which the principles a mensuration, strength of materials, or ordinary arithmetical computation are involved can be made. Mr. \#aswell bring to bear upon his work knowledge and judgment ripened by experience, and a stock of information
gathered from the best sou:ces both in tiifis country and in Europe. gathered from the best sou:ces both in titis country and in Europe. Th e
work is bound in flexible morocco covers, with a receptacle tor Work is bound in flexible morocco covers, witu a receptacle tor loose mpmo-
randa, and a clasp. It should be carried in tne pocket of every mechanic. We give it our unqualifed commendation.
Metallergy of Iron. By H. Bauerman, F.G.s. A Treat ise, with an Appendix on the Martin Process for Making missioner to the Universal Exposition at Paris, 1867 . Fisst American Edition, revised and enlarged. New
York: Virtue \& Yorston, 12 Dey street, and D. Van Nostrand, 192 Broad way.
This is an important addition to the stock of technical works published in this country. It emboaies the latest ficts, discoveries, and processes connected with the manufacture of iron and steel, and should be in the hatid of
every person interested in the subject, a $s$ well as in alltechnical and scientifis every per
libraries.
The Crack Shot, or the Young Rifleman's Complete Guide being a treatise on the use of the riffe, with rudimentary and finisbing les weapons, profusely illustrated, and containing rules and regulations for tar weapons, profusely illustrated, and containing rules and regulations for tar
get practice, and directions for bunting game found in the Unitpd Staces and British Provinces, bas just been issued hy W. A. Townsend $\&$ Adaus, New
Yors. it will find a weicome place in the knapsacks of many sportsmeu who Yors. It will find a weicome place in the knapsacks of many sporssmen who
at this season are exchanging the dust and noise of the city for sylvan shades nd forest sports.
The Eclectic Magazine for August is at hand, with its Powers, with which it is embellisbed, is by no means the least of it of miram Powers, with which it is embellished, is by no means the least of its many at Atlantic Monimly.--Ticknor \& Fields, Boston. August

Patent Office lllustirations.-We are indebted to Messrs E. R. Jewott \& Co., publisbers, BuFalo, for advance sheets of the

Patent Omfe illustrations from 62,847 to 64,986 . This brings the work up to | Patent |
| :--- |
| Mi. | 1867.

The sixth number of the Worksнop is received. We hould $o$ violence to our sense of the sterling merit of this publication did We fall to heartily commend it toalllovers of art. The splendid engraving of the Pulpit of the Church ofSanta Croce, Florence, by Benedecto da Majano, and its accompanying description, are alone worth the price
Publisbed by E. Steiger, 17 North William street, New York.

## EXTENSION NOTICES.

## John Ross, of Brooklyn, N. Y., administrator of the estate of Cbarles Ros

 deceased, having petitioned for the extension of a patent granted to the sai Cbarles Ross the 17 th day of October, 1854 ,for an improvement in grindingsurface in mills, for seven years from the expiration of said patent, which takes place on the 1ith day or October, 1868, it is ordered that the said pet1tion be heard at the Patent O\#fce on Monday, the 28th day of September tion be
next.
Abigail L. Webster, of Binghantou, N. Y., administratrix of the estate of Benjamin B. Webster, deceased, having petitionedfor the extension ot a pat ent granted to the said Benjamin B . Webster the 3d day of October, 1854, 倍 of said patent. which takes place on the 3d day of October, 1868, it is o dered that the sald petition be heard at the Patent Office on Monday, the 1st day of Septerber next.
Samuel Van Syckel, of Titusville, Pa., having petitioned for the extension of a patent qranted to him the 31st day of October. 1854, and reissued the Oth day of June, 1868 , for an improvement in grate bars, tor seven years irom 1868, it is ordered that the said petition be heard at the Patent Office on Monday, twe 12th day of October sext.

