## working in grooves in the sides of the can, and provided with a lever by means of which tt can be operated. The grooves in the sides of the can are means of which it can be operated. The grooves in the sides of the can are semi-annular, so that the can can be inserted from either side and applied on

 eitver side of the cover.Mitering Machine.-John J. Sanders, Jr.,New Fork city.-This invention relates to a machine formiteringmoldings and other articles, and consists in a new manner of combinin§ planing knives with circular saws, so that the
edges of the moldings which are being sawed may, at the same time and by edges of the moldings which are
Potato DigGer. - Jobn W. Burnham and Wilson Coulon, Middletown Point. N. J.-This invention relates to a potato digger which is so arranged that the scoop may be placed at any desired angle, and may be raised and lowered at will, inpependent of the irame to wbich the lower roller, holding
the endless apron, is secured, although the latter frame may also also be tha endes or lowered at $\begin{aligned} & \text { ill. }\end{aligned}$
Pipe Wrence.-Nardo F. Loi, New York city.-This invention relates to a wrench which is so arranged that it can be adapted for clamping all sizes of prench which is so arranged hat from the esmallest to the largest, and also for clamping plates or other
articles of suitable shape. It is in fact a universal wrench, useful in every articles of suitable shape. It is in fact a universal
machine shop, and wherever wrenches are required.
machine shop, and wherever wrenches are required.
Universal Holder for Carving Machinzs. - Isaac Hall, New York city. -This inventionjhas for its object to furnish an improved holder for holding the pattern and work for carving machines, designed especially to be used
with the improved carving machine patented by the same inventor March 10 , 1868, and numbered 75,413 , but equally applicable for use with other ma10, 1868 , and numbered 75,412,
chines tor similar purposes.
Air-Chambered Shipping Case.-Moses H. Nichols, Hancock, N. T.-This
invention has for its object to turnish an improved shipping case, designed especially for shipping butter and honey, but which may be used with equal advantage for other simular articles.
Constriction or Quiltrd Shoes, SLippers, ETC.-Marie L. Hill,New York
city.-Thisinvention relates to a manner of constructing quilted shoes, boots,
city.-Thisinvention relates to a manner of constructing quilted shoes, boots,
and slippers, and consistsin arranging between the filling and outer covering and slippers, and consistsin arranging between the filling and outer covering
of the qui:ting a layer of Aannel or other suitable materal, of the same color of the quiiting a layer of dannel or other suitable materal, of the same color
as the outer covering. The object of the invention is to produce a shoe as the outer covering. The object of the invention is to produce a shoe
which, after the outer covering is worn at some places, will still appear whole, a
filling.
Brici Maceine.-John S. Wood, Hartford, Conn.-This invention relates to certain improvements in brick machines, by means of which the pressure
upon the clay in the molds can be regulated at will, by means of which the maccine can be interrupted at once, whenever desired, without, stopping the motion of the main driving shaft, whereby the "grate will be enabled to
yield to stones or other obstacles that may project from the moids and yield to stones or other obstacles that may project fron the moids, and
whereby the gate in front of the mold box will also be aucomatically raised whereby the gate in
Water Wherl.-Patented May 5, 1868. Alonzo J. Hall, Derry, N. H.-This invention consists of an inner reacting wheel acting in conjunction with an
outer wheel, together with a governor and valve for regulating the quantity and force of water. The inner wheel is constructed with foar arms, through Which the water is conducted to the outer wheel, where the water sssuing from each arm impinges against two of the floats at once, and at such an angle as to produce greater effeet and in the whole volume or water were body of water, whereby the friction is greatly reduced, and at the same time the water acts as a lubricant to the bearing surfaces.
HAY Fork.-M. H. Pope, Susquehanna Depot, Pa.-This invention consists of the arrangement and operating devices of the lifting tines, which latter are thrust out horizon
through suitable slots.
Gas Requlator.-s. F.Mathews, Mechanicsburgh, Pa.-The objectof this nvention is to provide means for governing and controlling the tiow of gas from the main pipe in a bouse before it is distributed to the burners, and it
consists in arranging an adjustable thimble on the end of a gas.pipe nipple, the position of which thimble is regulated by the pressure of the gas, and dethe position of which thimble is regulated by the pressure of the gas, and
termines the quantity which is allowed to pass througl to the burners.
WingmilL.-Hiram M. Shaw and Geo. G. Tindall, Fremont, Ohio.-This in
vention congist in an arrangen vention consists in an arrangementfor pumping or ralsing water by the power
of the wind, and in controlling that power by the weight of the water so of the wind, and in controlling that power by the weight of the water so
raised, whereby many advantages not hitherto secured by the application of raised, whereby many ad
suchpower are obtained.
Glose $\Delta N D$ Cerex Val ve.-John B. T. Van Patten, Sing Sing, N. F.-This
invention relates to an improvement in globe valves, whereby they are made to operate as check valves.
Wood Cleater.-John Van Winkle, New York city.-Tbis invention relates to an improvement in implements used for splitting the wood used in
cities and other places tor kindling fres, and for other purposes. cities and other places for kinding dres, and for oher parpoes.
BROOM Holder.-FF. B. Batchelder, Prairle du Chien, Wis.-The object of
this invention is to furnisha cheap and convenient this invention is to furnisha cheap and convenient articleforbolding brooms,
mops, brushes, and other articles of a similar nature, and for household or mops, brushes, a
other purposes.
Safety Valve.-F.Harden, Conshokocken Pa.-This invention relates to an improvement in safety valves, whereby they are made mu
tive and sure in their operation than those hitherto in use.
Brice Machine.-Lewis M. Vansickle, Woodbridpe, N. Y.-This invention relates to a machine for molding and pressing brick, tile, etc., and it consists in a new and improved construction of the soraper of the mur mill, whereby
the scrapers are rendered less liable to break than; those of ordinary conthe scrapers are rendered less liable to break than; those of ordinary con-
struction. It consists in a peculiar mechanism for molding, pressing, and discharging the brieks, whereby sald work may berapidly performed, and in a perfect manner.
Sedding Machine.-E. P. Harris, Conneautville, Pa.-This invention reates to a machine for sowing seed of various kinds, and may be adapted tor
planting potatoes. It consists in a peculiar construction of certain parts planting potatoes. It consists in a peculiar construction of certain parts,
whereby an exceedingly simple and efflient device whereby an exceedingly simple and effcient device for the purpose specifled is obtained.
HAND AND BENCE DriLL.-Charles G. Miller, Brattleboro, Vt.-This inven-
tion relatesto a hand and bench drill, and consiste of a peculier construction tion relatesto a hand and bench drill, and consists of a peculiar construction
and arrangement of parts, whereby an exceedingly convenie nt and desirable and arrangement of parts, whereby an excee.
article for the purpose specifed is obtaned.
Sa wing Machins.-James R Logan, Rolla, Mo.-This invention relates to improvements on cross-cut sa wing machines, and is more especially designed
to be applied to a machine of that kind for which Letters Patent were granted to this inventor Dec. 19th, 1865. It consists in a novel manner of applying the wheels, on which the machine is mounted to the axle thereof, whereby they may be adjusted in a plane parallel with the log, to ensure the ready ad-
justment of the saw to the log, after each cut. It also consists in an improved means for suspending the saw, or keeping it in an elevated state when the machine is not in use, or is being drawn from place to place.
Corn Planter.-W. R. Clark, Indianola, IIl.-This invention consists in Corn PLANTER.-W. R. Clark, Indianola, M1.-This invention consists in
certain devices which conduce to a more perfectand satisfactory operation in planting corn or other grain of similar character.
Necroserer.-Mary E. Mott, Rouses' Point, N.F.-The object of this inven-
tion is to preserve a corpse from decomposition before burial. It consists of a rubber case or envelope for holding ice, and is provided with a discharge tube of the same materialfor conducting of the water as the ice is melted.
It is filled with ice and laid upon the abdomen of the corpse, and a tube conIt is filled withice and laid upon the abdomen of the co
ducts the water from the sack into any suitable vessel.
Hoss.-Edwin M. Cbaffer, Providence, R. I.-Thisinvention consists in the
employment of Grenoble hose as a means of sustaining the pressure of the employment of Grenoble hose as a means of sustaining the pressure of the
water within the waterproof or inner hose. The two hose being cemented water within the waterproof or inner hoss
togetlier by rubbery by a suitable process.
Plow.-Gabriel Utley, Chapel Hill, N. C.-Tbis in vention has for its object
to furnish a i improved plow so constructed and arranged that the moldboard and point may both be detached trom the plow when desired and so that the said parts may not.be weakened by having bolt holes formed in
hem.

Converting Cast Iron into Wroeart on Malleable iron.-Alexander
Lisk, Philadelphia, Pa., and Adam Woolever, Allentown, Pa.-This process Lisk, Philadelphia, Pa., and Adam Woolever, Allentown, Pa.-This process
consists in commingling with melted cast iron certain chemical substanices, which, being decomposed by the intense heat of the iron, produces the requi-
site chemical change and quality in te later which is site chemical change and quality in the latter which is known as malleable
or wrought fron. or wrought iron.
Cooking Stove.-B. Newbury, Coxsackie, N. Y.-This invention has for
its object to improve the consiruction of cooking stoves so as to make the its object to improve the construction of cooking stoves s's as to make them
more convenient in use.
animal Trap.-John C. McClamrock, Edina, Mo.-Tbis invention has for its object to furnish an improved self-setting animal trap, which shall simp ie in construction, durableand reliable, which will require little atten-
tion, and with which any desired number of animals may be the trap being visited.
Folding STooL.-W.E. Cameron, Green Island, N. Y.-This i:2vention has
tor its object to furnish an improyed and arranged that it may be folded into a very neat and compact form storage or transportation.
Bill Poster.-A. H. Fatzinger, Washington, N. J.-This invention relates to a device for securing bills in position or bolding them against a wall or other fifture. The invention consists of a series of clips, of peculiar con-
struction, attached to a cleat which is nalled or secured to the wall or other struction, attached to a cleat which is nailed or secured to the wall or other
fxture, so that the upper end of the bill may be readily inserted in the clips fixture, so that the upper end
and retained or held thereby.
Gratr Bar.-Henry King, Waterbury, Conn.-This invention relates to a method ol constracting the grate bars of furnaces, tire boxes, etc., whereby Tape Bos A Jollo Merid
catch by means of which thedrum of the box having the tape wound arour: $d$ catch by means of which the drum of the
it, is held or released, as may be desired.
Gas arparatus.-James McCleis h, New York city.-This invention relates ances and aparatus for lighting eteamboats, railway cars, and other conveymeans for the purpose specifeei, which will be compact, so as not to monopo. lize much space, emfcient in its operation, and, especially as regards pressure, simple in corstruction. and not liable to become deranged by use. Surcinale.-Stephen Hyde, New York city.-The object of this invention is to provide a surcingle or girth for horses, which will yield sufficiently
when the animal breathes, or lies down, when the animal breathes, or lies down, or exerts himselt inany unusual
manner. It consists in the inter position of two rubber straps or joints on manner. It consists in the inter position of two rubber straps or joints on
each side of the buckle, these joints being sewed to the ends of the girth or surcingle and to the buckle strap. The tongue strap is sewn to the other rubber joint in the same manner, and the joints are inclosed in .. leather sbeathes for protection.

## Buswerg to croreespondentis.




All reference to backnumbers should be by voume and pao.
G. W. A., of Mass.-Excellent emery wheels which may be used with water, as are grindstones, are made by disolviny gum shellac
in alcohol, mixing the emery with it and pouring and pressing in molds. in alcohol, mixing the emery with it and pouring and pressing in moldes.
Good wheels mayalso be made by a mixture of giue disolved, and femery, treated in a similar manner. Ordinary woolen or Canton flannel, and covering the whole with leather or strong cloth. Upon this is placed a coaticg of emery secured by glue.
P. B. C., of Ind.-For car or other axles piumbago-black-
tion.
J. E., of Mass.-This correspondent is entirely mistaken in suppos before we open our columns to tie discussion of tinis subject we wish to see some evidence that it may be " made useful," as our correspondent
seems to think. We are always ready to advocate and present the useful, seems to think. We are always ready to advocate and present the usefut,
but not to devote the columns of our paper to discussions annoying to most and valuable tonone of our readers.
W. P. H., of Mass., asks "why are the cones of fly frames convex and concave? Some contend that strainht conss will produce the
sameresult, which is notcorrect. I think the necessity for this torm is because of the position the belt is inclined to occupy, in changing places on the cones." We were not aware that cones were so made, but if so it is as a belt will always seek the bighest place on the pulley face, as is well
S. A. M., Jr., of Pa.-"Can you give me the titles of works or papers on aluminum?" We cannot. Better refer to ©. Van Nostrand,
corner of John street and Broadway, New York city, orto H.C. Baird, corner of John street and Broadway, New York city, orto H.C. Baird,
406 Walnut street, Philadelphia. E. H. C., of Iowa.-Kalsomining is simply a species of distemperpalnting, the ingredients being whiting, glue, and water, with such
colors added as will give the required tint, if any but pure white is deJ. H. M., of L. I.-" Is there more power gained by a long belt than a short one? Whatshalli put on leather belts to keep them soft? What is the best work on stationary engines ?" A long belt adheres with
more force to the face of a pulley than a siort one because of its superio What is the best work on stationary engines ?" A long belt adheres with
more force to the face of a pulley than a siort one because of its superior
weight. As long belts may be run slackerthan short belts, millwrights and weight. As long belts may be run slackerthan short belts, millwrights and
mechanics prefer a considerable distance between shafts driven by belts ranning from one to toe other. Neatsfoot oil is the best softener and preSteam Engine," and "Bith which we are acquainted. "Bourne on the on the subject. Castor oil is perhaps the best oil for greasing belting ; see
Vol. XV ., p. 357. J. K. P., of Miss., asks what is the best water wheel for a small stream, one that will give the most power, suitable for a corn mill. He says, "I have a smallstream thatwillafford a body of water onlv three feet wide, and threeinches deep, with six teet fall; ; what is its power with
the best wheel, and what thecost of the wheel?". The proper persons to referto in regard to power and cost of wheels are our auvertisers. H. C Baird, Walnut street, Philadelphia, will furnish you with the latest edition of Pallett's "Miller and Millwright"" and D. Appleton \& Co., New Fork city, will furnish their encyclopedia.
J. P., Jr., of R. I.-We are not responsible for the published opinions of correspondents. The information you seek can undoubtedly
be obtained by addressing the writer of the article to whion you refer. A. N. C., of Mass.-Rubber does not dissolve easily enough give rou a varnish by simply placing it in a bottle with tie solvent, Ether is one of its regular solvents, but then it must be real ether and not the mixture of ether and alcohol which is sold for ether in many drug stores. Italso must be pure rubber, and not the sulphur vulcanized article; then this pure rubber must be cut into small pieces, soaked in the eth er in a warm place for about twenty-four hours until they are swollen up, and
then 1tmust be kneaded in a mortar, In such a way rubber varnishes may be madeandaremadeeven with common benzine.
R., of Md. - Your method of covering glass with a crystallization of some salts of course is old, as you suggest. Salts of soda absorb
too much the moisture and therefore will not last. Sulphace of $z$ inc is better, to be dissolved in some gam water, which is as good or perhaps better than beer.
J. R. N., of Pa.-That your fruit did not keep in glass jars with "thin corks" as well as in tin cans with " $t$ in covers" is very natural.
Sealing with wax even doces not make a cork proof agaulust the penetration Sealing with wax even does not make a cork proof agaust the penetration
of oxygen when it is dry; theretore wine bottles mast lay down and a of oxygen when it is dry; theretore wine bottles mast lay down and a
champagne or beer bottle kept in a position that the cor's remains d:y, they will surely we spoiled in a week even with the best stylle of corking.
For truit evea the inversion will not do, as all air must be prevented from For truit evea the inversion will not do, as all air must be prevented from W. H. G.-Tobacco ashes would be good for manuring soil Where Itobaccogrows, only they cannot be obtained in sumficient quantity they are also recommended for tooth powder, and sometimes contain small quantities of the rarernew metals, rubidium and cæsium. We have
in our possession a oottle with pure white salt, crytallized out of alye in our dossession a bottle with pure white salt, crvstallized out of a lye
made fiom tob.ceo ashes sent us by a correspondent. However we do not H. M., of S. C., sends us a few algelraical problems with the answers and partial solutions, and states that he will "disclose them in
full, for an adequate remuneration;" we do not feel inclined to pay a man for solving his own puzzles,
S. S., of Ind.-Lemon juice may be preserved by making an almost saturated solution with sugar; likewise all other extracts of
truits. It is, in fact, the way by which all the flavoring sirups tor soda water are preserved. Flavoring extracts are preserved by the addition of
W.C.W., of Ala - Rubber coming in contact with fruit in airtight preserving jars may in some cases communicate its peculiar odor to
the fruit ; the frutt will $\varepsilon$ ct less on the rubDer, butic must be lept in view
 rotten, in fact oxicizes by atmuspheric influences.
P. C. D., of Pa.-The latent heat of vapors of different liquids has been determined by Andrews, Despretz, Favre, and Silberman. (Sec
Quart. Jour.Chem.Soc., Vol. 1, p. 27). Brix found that for water, alcohol, Quart. Jour. Chem.Soc., Vol.1, p. 27). Brix found that for water, alcohol,
ether, and turpentine, the latent heat of the vapors was for equal weights respectively 1000,420 , 194, and 167 . and the specifc gravity of these vapors is as $0 \cdot 45,1 \cdot 26,228$, and $3 \cdot 2$, the latent heat tor equal volumes therefore is 600,
635,509 , and 590 . Alcohol therefore contains the greatest amount, an ether the least amount of heat fore equal volumes, of course under the and ethe atmospheric pressure. (The boiling points are $212^{\circ}, 172^{\circ} .95^{\circ}$, and $315^{\circ}$ re spectively.) For all these reasons vapor of ether is theoretically the mos economical and several years ago a large etber engine was built and experimented with at the Novalty Works, New Forkcity ; practical diff T. W. B., of Ky.-A very good white soft metal that may be rolled into sheets is thac used for the plates music is engraved upon, and
may serve your purpose ; it is an alloy of block tin with 10 per cent ofant1may se
mony.

## zusimess ad zersoman.

The charve for insertion under this head ts one dollar a line.
For breech-loading shot guns address C. Parker, Meriden,Ct For Improved Lathe Dogs and Machinists' Clamps, address, for Circular, C. W. Le Count, South Norwalk, Conn.
Brick Machine.-Laffer's New Iron Clad has more advantages than any other ever invented. For descriptive circular address J. A. Laf-
ler \& Co., Albion, Orleans county, N. F. Wickersham's American oil feeder-the best and will leall See Wheeler \& Wilson's buttonhole attachment, mialing one hundred butcenholes an hour. The desideratuin for families, dreesmaker
Mill-stone dressing diamond machine, simple, effective, and durable. Also, Glaziers' diamonds, and for all mechanical parposes. Sen Funston's electric toy.-Sec advertisement.
Wanted--the address of plow makers everywhere. Acllress J. E. Jinkins, Milton, Fla.

Wanted--a practical brass cock maker--to concluct and take an interest in the brass finishing business. One that can furnish from $\$ 1500$
$\$ 2000$. Good reference required. For full particulars address postofice 82000. Good reference
box 446, Richmond, $\begin{aligned} & \text { Va. }\end{aligned}$.

Wanted-Wood-working machinery. Illustrated priced lists of wood-working machinery, such as for making buckets,chairs, bedsteads,
etc. Also, spoke and hub lathes, and bending fellies, shatts, plow handles, etc. And asteam engine, wit. and without hoiler, about 12 -in dim. and Employment for all at $\$ 550$ to $\$ 875$ per day. Send two
Lubricators for valves and cylinders, Broughton's are far the best. Made by Broughton \& Moore, 41 Center st. They make, also, the bes Two valuable patents for saie-now in successful operation and sold only to close an estate. Inquire of S . N. Muir, 123 Waverly Place New York.
All genuine Bartlett sewing machines are provided with a guarantee bearing the trade mark and signature of J. W. Bartlett, the
p.tentee, from the depot, 569 Broadway, New York. Beware of bogus ma chines and agents.
Winans' Boiler Powder (11 Wall st., N. Y.) A positively un injurious remedy for incrustations, 12 years' references. Be ware of fraud

## NEW PUBLICATIONS.

## Atlantic Monthly. Ticknor $\begin{gathered}\text { 戠 Field, Boston }\end{gathered}$

The June number is issued, and the subjects of the writers are treated in but the subjects lack the usuai interest. Price $\$ 4$ a year ; 35 cents for singl numbers.

## EXTENSION NOTICES.

Dantel Halladay, of Batavia, ili,,formerly of Elington, Conn., having pe titioned for the extension of a patent granted to him the 29th day of Au gust, 1854, for an improvement in governor for wind mills, for seven year
from the expiration of said patent, which takes place on the rom the expiration of said patent, whict takes place on the ath day o
August, 1868, it is ordered that the said petition be heard at the patent office on Monday, the 10th day or August next.
A bner Wbiteley, of Springfeld, Ohio, having petitioned for the extension day of January, 1856, for an improvement in track clearers to grass ha vesters, for seveln years trom the expiration of said patent, wnich takes place
on the 22 day of August, 1868 , it is ordered that the said p itition be heard on the 22 day of August, 1868, it is ordered that the said $p$.
at the Patent Office on Monday, the 10th day of August next.
Phillippine S. Brackenridge of Natrona, Pat administratrix of the estate o Edward Steiren, deceased, having petitioned for the extension of a paten
granted to the said EdwardSteiren the 12th day of December, 1854, for an improvement in process of treating the mother-water of salines, for seven of December, 1868 , it 18 ordered that the said petition be bearclat the Patent
Ofllce on Monday, the 16th day of November next.

Improved Hand Sawing Machine.
No labor is more exhaustive to the wind or requires more monotonously muscular exertion than that of sawing wood for fuel by the old-fashioned buck saw. It may be excellent exercise for those of sedentary habits and others of a dyspeptic tendency, but we never heard of any one choosing the wood sawyer's as his vocation, however agreeable it may be to officiate as a " wood sawyer's clerk." The inventor of the to officiate as a " wood sawyer's clerk." The inventor of the machine shown in the engraving evidently agr
he has constructed a neat and portable machine, which, if it does not make wood sawing a pleasure, greatly di minishes its labor.
The machine is a frame with a braced upright, to the top of which is pivoted a segmental swinging frame, holding between its lower ends a curved saw plate. The movement of the frame and its saw is like that of a pendulum, and it is produced by a handle attached to the wrist pin of a crank, which pin carries a sliding box traversing between vertical slides the length of which is equal to the full stroke of the crank. The shaft that carries the crank has on its other end a balance wheel to equalize the reciprocatory motion of the saw.
$\therefore$ In the engraving, $A$ is the sliding box and handle, and B the balance wheel. The lever, C , is for elevating the saw and its appartenances by means of a sliding bar, D , traversing between two uprights. This lever is weighted at the end opposite the handle, C, by a weight that may be moved toward or from the center to act as a means of forcing the saw into the wood. The bar, E, with the toothed catch, F, is intended to hold the stick or log while being sawed.
This simple machine will saw wood much more rapidly and with less labor than the work can be performed by hand, and it is cheap and durable. It is the subject of a patent obtained through the Scientific American Patent Agency, dated Nov. 6, 1866, and an application for improvements is now pending. Further information may be obtained by addressing H. A. Daniels, at Thomaston, Conn.

## Burying Alive.

A method for determining when death has taken place without that of actual decomposition, which in very cold weather might be delayed for weeks, has always been a desideratum. The fear of being buried alive, which has undoubtedly occurred in many instances, has proved a source of anxiety to persons'during life and of sad conjecture to their surviving friends. It is said that it has been recently discovered that if the skin of a deceased person is blistered, as by bolding the flame of a candle against the body, when punctured the blister will give out only air, whereas if death has not taken place the flame causesinflammation and a watery serum will be deposited under the blister. It is claimed that this is a certain test when inability to feel the pulse, cold skin, no deposit of breath on glass, and other methods fail.

Device for Replacing Cars on the Track. Notwithstanding the frequent accidents from the displace ment of locomotives and cars from railways, the use of the jack screw and frequently other less mechanical and still cruder means are employed to replace them. Even the former is not al. ways carried on the train, and the latter demand the oversight of some well balanced and executive mind to make their use effectual. A portable and convenient device for remedying the annoyances attending these almost unavoidable accidents seems to be reaily a desideratum. It would seem that the one repre, sented in the engraving repre, ented in the engraving accomlanying this article was well fit Th answer this want.
The pieces to be used are only three in number. and are not so heavy but that either of them can be readily carried by one man. They consist of a grooved plateA, with side projecting flanges to slip over the rail and to be held in place by means of wedges, or keys, $B$, fitting between the flanges of the plate and the web of the rail. This plate has a gradually opening or expanding groove, guarded on each side by flanges. It is so constructed that from the forward end it declines to the road way, forming an easy incline for the wheels of a car. To further assist the car in its progress to the track, a bar, $\mathbf{C}$, is used, one end of which fits in a proper socket in the plate, A, and the other end of which is curved so as to fit either one track or the other, as the run-off cars may be. It can be easily reversed so as to suit either contingency.


DANIELS' PATENT WOOD SAWING MACHINE.
ion on the r smooth incline, D. The device is as well adapted to street cars as to steam cars. It is recommended by Franklin Peal of the Baldwin Locomotive Works, Philadelphia, Robert H. Sayers of the Lehigh Valley Railroad Co., and other prominent engineers and railroad men.
It was patented through the Scientific American Patent Agency, April 14, 1868. Railroad companies and others desirous of purchasing rights may address B. K. Jamison, 301 Chestnut street, Philadelphia, Pa.

Vitality of Insects' Egas.
The Troy Times says: "A gentleman who lives on Ida Hill


JAMISON'S CAR REPLACER. informs us that ten years ago he bought a piece of enameled cloth for a table cover, on which there was at that time and make of the cloth. A day or two since a child of his scraped the bunch with a knife, when out crawled a bedbug, as lively as ever.'

| ever." | gas |
| :--- | :--- |
| This case may be a renarkable one, but newspaper men | $\begin{array}{l}\text { gaal. } \\ \text { coal }\end{array}$ |

and dealers in paper will not hear of it with much surprise, The Cimex Lectularius or common bedbug is very tenacious of life, as all our neat housewives know. He will stand boil ing water, oil, soap, and even some of our patent bug destroyers, and rather seems to enjoy his rough treatment, as we su perior animals enjoy the rough usage of the Russian bath But his embryo offspring seem to be still more tenacious of life. Some years ago, in writing on unprinted news paper we detected a bunch which occasioned some annoyance, a such an obstruction will to a writer, and opened it with the point of a pen, when a veritable cimex made his appearance, appar ently as fresh as though he had just awaked from a long winter nap. Subsequently, under similar circumstances one fairly cut through his paper envelope and walked out before ou eyes. In both cases the enveloping film of paper appeared to be whole, and we could not resist the conviction that the embryo had passed through all the stages of the paper manufacture-the sorting and washing of the rags, their grinding, steaming, pulping, man ufacture into paper, calendering, and putting np for the market.

## A New Life Saving Invention

Last summer publicinterest was excited in watching the success of two trans-Atlantic ex cursions undertaken by certain foolhardy in dividuals who were willing to stake their lives against a short-lived notoriety. It having been demonstrated that the ocean passage can be made in an ordinary sail boat, or raft with a fair share of safety, we should not be surprised if some future adventurer desirous of creating a sensation and rendering himself famous in this line, should undertake a trip, or rather swim, to Europe, the feat being pos or rather swim, to Europe, the feat being pos-
sible with the life-saving apparatus of Captain sible with the life-saving apparatus of Captain
Stoner, exhibited in this harbor on the 27 tl ult. The apparatus, whose design is for ser vicein case of shipwreck, consists of an india rubber suit, in one piece and made large enough to put on over the ordinary clothing of the wearer. The buoyant power resides in a cork jacket worn inside the rubber suit. A covered framework fastened to the hands fur nishes propelling or swimming device, and a light metallic case serves as a resoir for pro visions, holding enough food and water to last visions, holding enough food and water to las for a month or more. The trial on Wednesda was under the auspices of the National Life
Saving and Ship Ballasting Company, who chartered a government steamer for the occa sion. Two persons dressed in this suit remained in the water for nearly two hours without wetting heir clothing in the slightest degree.
The apparatus is somewhat similar in construction, and for the same purpose, as an india-rubber suit with an air bag on the back, making the wearer when in the water, resemble porpoise, which was exhibited by the inventor in our harbor several years ago, much to the amusement and consternation of great numbers of persons who gathered upon the docks to witness the exploits of the exhibitor. Similar apparatus has been experimented with on the Continent for a number of years, but we have never known of their useful application except for wrecking purposes.

Petroleum in Parliament. The English journals notice the introduction of a bill into parliament imposing additional restrictions upon the sale and use of petroleum. The billwhich by this time has un doubtedly become a law-while serving as an amendment to what is known as the Petroleum Act of 1862, is still more string ent in its provisions, and virtu ally puts an end to the sale of all lamps using the light hydrocarbons and also the various styles of portable illuminatinggas machines which have proved themselves of great service in many localities in this country but of whose value, it seems, the Britons are never to be acquaint ed. The test for lawful petro leum is placed, by this bill, at one hunared and ten degree Fah., the commereial test fo kerosene in this country, and any person selling, or exposing for sale, oils giving off inflammable vapors below that point, is subjected to a fine of five pounds sterling. Venders of "patent non-explosive oils" "will not find much encourage ment for driving a very extensive trade in England.

The French towns of Narbonne and Passy, near Paris, have been lighted at night, for several years past, by illuminating gas made by passing the vapor of water over incandescent

