34,904.-Timothy Reymond, of Franklinville, N. Y., for Improvement in Lamp I claim the arrangement of tha wick tube, $C$, with the movable sidte used, as represented, whereby the
with oil, substantially as sel forth.
34,905.-Caleb Sanborn, of South Berwick, Maine, for Improved Medicine for Croup I claim the componding and mixing the forenamed ingredients, in
the maner a ud relative proportion, aset forth. 34,906.-I. M. Singer, of New York City, for Improvemen in Sewing Machines. Patented in England May 0 I claim the combination of the feed bar of a sewing machine, with a
cam for csuming the feding surface to recip rocate in one direction, and
with inclined slocks, that will caus wam inclined blocks that will cuase it to reciprocate in a directio
crosswise to the first, the combination being such that the feeding sur crosswise to the irst, the combination being such that the reeding sur
face ean be caused to move either longitudnally or transversely othe
support of the material, according to the guide which is employed to support of the material, according to the guide which is employed to
refulate the direction of the feed, substantially as specified.
also claim the combination of the feed bar of a sewing machine vith mechanism for raising it and lowering it, that is , congtructed in eeding surtace is protruded above the support of the work, substan ially as specified.
I also claim the
for moving it either longitudinally or transversely, to the support o
the material, and also with adjust atie mechanimn tor for moving it either longitudinally or transversely to the support or
the materal, and allow with adjust able mecha nism tor varying the pro
trusion of its feeding surface, substantially as set forth. 34,907.-J. S. Smith, Jr., of New York City, for Improve ment in Imitation Metal Embroidery:
spiral, A B, constructed substantially as specified.
34,908.-Oliver Snow, of West Meriden, Conn., for Im
proved Spring for Lamp Chimneys : Iroved Spring for Lamp Chimneys :
part of the lamp top, to securure the chimney in its place, when the are are
onstructed, attached and fited to produce the effect, substantiall escribed.
34,909.-G. L. Squire, of Buffalo, N. Y., for Improvement in Harvester Rakes:
I claim, first, The employment or use of the crank, $F$, or it sequivalent, counecting rod, G, and bearing, I, a arrauged, substantially as
shown, and used in connection with the post or swirel head, $\mathbb{C}$ for perating the rake, $B$, as set forth. necting rod, $G$, and the adjus table plate, $H$, which connects the fron
end or the rod, $G$, with the rake head a, in combination with the ad
justable pin, $f$ which connects the back or outer end of the connect justable pin, f, which connects the back or outer end of the connect
Ing rod with the crank, $\mathcal{F}$, subsataniall as described, whereby th
movement of the rake, B, may be modified or varied, as set forth.
[The object of this invention is to obtain an automatic raking device for harvesters, which will be extremely simple, eflicient, economica to construct, and capable of being applied to the harvesters in common use, as well as capable of being adapted for working in various kinds of grain.]
34,910.-Henry Steinway, Jr., of New York City, for Im-
 $h$, antlily as, set forth.
sement of the regulating screw, $m$, and fixed
fitecont. The arrangement raiil $n$, in combina
34,911.-J. L. Swan, of Lowville, N. Y., for Improvement in Firearms:
1 claim the breech, $h$, and barrel, $b$, fitted as specified, in combina-
thn with the socket, a, recelv ing the parts, as set forth, when the ex tion with the socket, a, recelving the parts, as se trorth, when the ex
posion is effected by piercing hammer, 5 entering the detonatiun
cap in the conical hole, 6, of ssid breech, h, substantially as se
forth.
34,912.-Almon Swift, of Wolcott, Vt., for Improvement in Corn Shellers
 of them, with the incllned receeviver, F, the ransing cetlinder, B, and it
concave, $D$, constructed and operating as and for the purpose spect 34,013.-George Teed, of New York City ${ }_{2}$ for Improve mentin Banjos:
I claim the sound board, $C$, interposed and forming a means of con
nection between the parchment head, $B$, and the rim, $A$, substan And I also claim the prose, specified.
tiall having an annular cavity, a, receiving
Anthin it, the ring, b, and hooks, c c, and forining a means of connec Mithin it, the ring, b, and hooks, cc, and rorning a means of connec
tion between the head, $B$, aud sound board, $C$, substantially as de
scribed
(This invention consists in the arrangement of a sound board be ween the parchment head and the rim of the banjo, the object bein o give a more poweriul and finer tone to the instrument.
34,914.-S. H. Timmons, of Memphis, Tenn.,for Improvement in Locomotive Lamps :
 a
34,915.-Elmer Townsend, of Boston, Mass., for Improve mentin Sewing Machines

 I apoclaim the
 te in manner substautially as described.
34,916._-Thomas Warker, of New York City, for Improvement in Apparatus for Aerating Liquids
I claim, first, The arrangement of two fraucets, $\mathbf{D} \mathbf{E}$, one to communi-
cate wwh the gas space and the onther with the water space of the receiver, $B$, as and for the purpose described. . The arrangement of the vertical tube, $\mathbf{c}$ in combination
Sith the connectingcollar, $\mathbf{C}$, and gas filucet, $\mathbf{D}$, substantially as and
with the ior the purpose set forth.
Third, The combination and arrangenent of the generator, A, re
ceiver, B, collar,
 34,917.-Linn Van Order, of Ithaca, N. Y., for Improvement in Mica Lamp Chimneys
I claim so constrncting the frame work of the chimney as to inclose
the eddes of the mica on all sides, and making one end adjustanle, so
as to allow the read as to allow the ready and easy reinnvara of the mica, for the purpose ot
leaning the same, or renewing it when worn out, soiled or otherwise ind
34,918.-A. B. Travis, of Brandon, Mich., for Improvement in Seed Drills and Cultivators

 um of the rock shaft, I, leve
and for the purpose set forth.
(The object of this invention is to obtain a cultivator and seed drill, the teeth of which may be readily shifted laterally by the actendant, in order toconform to any irregnlarities in the rows of a crop under cultivation, and also to evade obstructions, such as stones, stumps, ther for its obiect a simple means for regulating the depth of the penetration of the teeth in the soil, and the adjusting of the teeth, so that
they may operate nearer to or farther from the rows of plants, as cir ay require.]
34,919.-C. R. Alsop, of Middletown, Conn., assignor to
Percussion of New York City, for Improvement in
I claim in the construction of a portable band primer, first, The ex
tension, $F$, in combination with a circular percussion cap primer and ring plunger, the whole constructed and operating substundally in
rime manner nad for the purposes described. Secon, ithe manner described, to a circular percussion cap primer.
Third, A circular percussion cap primer of the character described,
so consiructect that thold top of the case, A, and by the pressure of the thumb upon one of its
parts forces the said cap vertically upon the nipple of a firearm, subanially as described.
4,920.-D. B. Clement, of Milton, Mass., assignor to C. B
Boyce \& Co., of Boston, Mass., for Improved Clothes
I claim aphy :
oll, the power of a single spring, $H$, to both ends of the
che levers, $G$, substantially as described.
34,921-E. E. Conrad (assignor to Henry Coulter), of 4,921.-E. E. Conrad (assignor to Henry Coulter), of
Philadelphia, Pa., for Improvement in Holders for Philadelphia, Pa., for Improvement in Holders for
Lamp Shades :
I claim, first, The clamps, a a a a, for the purpose of holding the
shade as and for the parpose set forth and described. Second, clamps, a a a a, in combination with the double braces, b b
b , and the wire rim, c , in the manner and for the purpose specified 34,922.-Charles Draeger (assignor to himself and John
Ott), of Indianapolis, Ind., for Improvement in Repeating Firearms
I claim, firgl, The arrangement of a cartridge magazine, B, revolv
Second, A plunger, p, and need le, n, constructed as set forth, and
combined in their operation with a revolving magazine, as stated sub
stantially and stantially; and
Third The helical spring, $\mathbf{S}$, when
of rotating the cartridge magazine, $\mathbf{B}$.
34,923.-J. C. Holston, of Derry, N. H.
Davi of Roasters :
1 claim the combination of the hinged door, B, the wire, $\mathbf{C}$, passing
hrough the hollow tube, E, used to open and close the door,, $\mathbf{B}$, and hrough the hollow tube, E, used to open and' close the door, B, an
he catch, F, with corn popper or coffer roaser, when constructed
substantially as described, and for the purposes set torth. 34,924.-Philander Rouse, of Macedon, N. Y., assignor to himself and . S. Heridgewate Mass., for Improved Top-Sail Rig
 Ially in manner and so as to operate es specided.
 yards, and the auxdliary y ard supporter
to operate subs tantially as specined.
34,925.-H. B. Thomas (assignor to J. W. English), of
Racine, Wis., for Improvement in Dampers:

34,926.-Rosewell Thompson, of Boston, Mass., assigno
to himself and J. C. Wilder of Boston, Mass., and Z.
W. Holden, Jr., of Bristol, Mass., for Improvenient in

I claim the guard, $\mathbf{k}$, upon the bok, E, in combination with th
driving pins, , sumbtantialy as described and for the onjects specifind
Second, Constructing the bobbin case,
 case so as te revolve with the hook, and also to act as a cast otf for the
thread when the point of the hook has entered the loop formed by the
needle.
34,927.-J. W. Wilcox, of New York City, assignor to E H. Ensign, of Orange, E. C. Bridgeman, of Clifton ment in Envelops:
First, I claim the combination of a tape or string with an envelnp
so atrached as to allow of being shipped around to move the knot, as
described, but not to admit of removal when tied with the efticct, sub
stantially as set stantially as set forth.
Second, 1 also claim
Sitcond, I also claim an envelope constructed in the box form, or
with a rectangular transverse action and streng thened by eyelets, $\mathrm{e} f$,
or their equivalents, as described and or their equivalents, as described and shown.
Third, I also claim, in envelopes of the box orm, the use of the sup-
olementary flaps, d , at the e nds, plementary flaps, c d, at the ends, substantiallyas and forthe purpose 34,928.-Isaac Winslow, of Philadelphia, Pa., assignor to
J. W. Jones, Portland, Me., for Improved Indian Corn
claim the described ne
Orn when preserved in the green state without drying the same, the
cornels being removed from the cob, hermetically seale and heated, sernels being removed from the cob, hermetically seated and heated
substantially in the manner and for the purposes set forth.
34,920.-Smith Groom (assigror to hinmself, Jacol Shave
and Lewis Potter), of Troy, N. Y., for Improvemen
I claim the combination of the annular steam chamber, $O$, with the
fire chamber, $R$, and the outside wall, $E$, substantially as and for the purpose described and set forth.
r also claim the combination of the annular chamber, 0 , andthe
annular stam pipe, N, with the boiler, B, by means of thepipes, $\mathbf{D ~ C ~}$ ubstentially as
34,930.-T. S. Lambert, of Peekskill, N. Y., for Improve ment in Cooking Stoves
I claim, first, The apylication of one or more division plates, ex tend-
ing along the fue under the oven from one side of fis bottom to its
 nder the ove bottom at one side and leaves
angles to the former, substantially as set forth.
anges to the former, substan tially as set forth.
siecond, The termination of the inner extremities of those division
piates at the central diagonal line, by parabolic curves, substantiaily
piates at the central diagonal line, by parabolic curves, substantialy
as set forth.
Third, The continuation of those plates after they have curved,
they are continued along the flue inder the oren till they curved, if Fourth, The attachment of division plates to the movable section of
the bottom of the oven in such a manner that when the section is
naised the division plates are removed and the fue easily cleaned, sub raised the division plates
stantially as as set frott.
Fifth, The construction
Fifth, The construction of a flue across the entire back of the oven
nd leading to the pipe colar after the pronucts of aombustion have
raversed four sides traversed four sides of the oven, substantially as set forth.
Sixth, The application of division plates in the back flues with grad uated lengths to assist in equalizing the distances irom difierent parts
ot the fire box to the pipe collar, in the direction of the draft, substan-
otill a tially as set forth.
Seventh The application of the independent slides, $O C$, or of one
of them with its back holes twice as far apart as its front ones, so as ently of each other, or together, as may be desirable, substatucaly as set torth. The application of the division plate in the ash pit, for the
Eighth, Thrpose of supplying air to the back part of the fire box, substantially as set forth.
Ninth, The aplication of a wide margined grate rest, with perfora-
tions and a scolloped edge, or either of these devices in combination Ninta, The application of a wide -margined grate rest, with perfora
tions and a acolloped edge, or either or these devices in combination
with a movable fre plate at the side of the fire box, substantially as
set forth. set forth. The construction of the slide of the oven above the grate rest,
Tenth,
substanialliv as set forth. Tenth, The construction
substantially gs set forth.
Eleventh, The construc





 Sixteenth, The combination of each and all the three classes of im.
rovements and particulars mentioned in the immediately previous
ree claims in one stove, substantily ain rovements and particulars mentioned as set forth.
4,931.-T. A. Timmins and A. F. W. Edwards, of Phila delphia, Pa., for Improvement in Hammock Tents : Beries of hammocks. E, a rranged radially within the tent and con
ected to acted to the pole of the same, the series of guy ropes, (G, and stand
ards , when the later, together with the cavas cover, and aided by the guy ropes, serve to form the vertical wall, and when the several
parts are connected tegether and arranged as and for purpose se 34,932.-C. W. Williams, of Boston, Mass., for Improve ment in Sewing Machines :
reclaim, irst, The combination of a feeding instrument, having
eciprocating movement in a horizontal plane only, with two independ nt p reaseraso arranged that one shall press the cloth so as to attac
to the feeding instrument, and the other shall hold the che her thescrifibed. pressers operating alternately, substantially in the man
Second, Connecting the two pressers with each other and with the
needle arm, by a lever, or its equivalent, arranged and operating sub
stantially as described. re-issues.
1,298.-A. G. Bevin, of Chatham, Conn., for Improved Mode of Attaching Sleigh Bells to Straps. Patented July 22, 1856
I claim securing sleigh bells to straps by means of staples, rivets,
onts, or their equivalent, passing through the straps and bells, sub-
santially as described. tantially as described.
[The nature of this invention will be fully understood by the claim it is a great improvement on the old mode of attaching bells to th traps.
,299.-J. C. Birdsell, of West Henrietta, N. Y., for Im
provement in Machinery for Hulling and Thrashin
Clover. Patented May, 18, 1858
I claim the arranging and combining in one machine the cylinder
which thrashes the balls and seed from the straw or stalks, and the ylinder which hulls the seed, so that the balls and seed thrashed may be hulled before it (the seed) passes out of the machine.
And in combination with the hrashing and hulling cylinders above
claimed, in claim the bolting or screening and conveying apparatus, claimed, I claim the bolting or screening and conveying apparatus,
which separates the bells and seed from the straw or stalks and dellv ers them to the hulling cylinder,
And in combination with the thrashing and hulling cylinders, I claim the screening and fanning apparatus he hulling cylinder.
1,300.-Henry Eddy, of North Bridgewater, Mass.,
provements in Cribs for Horses. Patented Jan. 6 1857
I claim, first, The application and use of the inclined planes, $\mathbf{H} H$ with the vertical opening, , between them, in combination with the
sides of the crib, $\mathbf{E} F$, substantially as specifed and for the purposes set forth.
Second,
I claim the space,
5 $\mathbf{h} \mathbf{k}$, partially inclosed by inclined

 designs.
,562.-George Crompton, of Worcester, Mass., Designfor Top Rail of Weavers' Loom

## TO OUR READERS.

Models are required to accompany applica tionsfor Patents under the new law, the same as formerly, except on Design Patents, petition, specification and oath, except the governmentf ce
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paper a bona fide acknowledgment of our reception of their funds.
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New Pamphlets in German.-We have just issued a revised edition of ourpamphletor Instructions to Imvntor,s, containing digest of the fees required under the new Patent Law, \&c., printed the German language, which persons can have gratis upon app No. 37 Park-row. New York.

## THE CHEAPEST MODE OF INTRODUCING

 INVENTIONS.INVENTORS AND CONSTRUCTORS OF NEW AND iseful Contrivances or Machines, of whatever kind, can have their nventions illustrated and described in the columns of the SCIENTIing.
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## PATENTS FOR SEVENTEEN YEARS.



The new Patent Laws enacted by Congress on the 2d of March, 1861, are now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.
The duration of patents granted under thenewact isprolonged to servarizg yeara, and the government fee required on fling an application for a parent is reduced from $\mathbf{\$ 3 0}$ down to $\mathbf{\$ 1 5}$. Other change in the fees are also made as follows:-

## On fillngeach Caveat........................................ 810 On fling each application for a Patent, except for adesign... 815 On issuing each original Patent....................... 80 <br> On issurng each original Parent. ....... <br> On appeal to Commissioner of Patents. On application for Re-lsee On application for Extension of Patent. <br> plication for Extension anting the Extension. ng Disclaimer...... <br> On fling appplicstion for Design, itiree and a a ha On filink application for Deanign, <br> The 4 aphat or Design, fourieen vears.............. 830

 cepting reference to such countries as discriminate against citizens of the United States-thus allowing English, French, Belgian. Austrian Russian, Spanish, and all other foreigners except the Canadians, te enjoy all the prifieges of our patentaystem (exceptin cases of designs)on the above terms. on the above terms.
During the last sixteen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted bV Messrs. MUNN \& CO., in connection with the publicaconfidence reper in confdence reposed in our Agency by the Inventors throughout the FIFTEEN THOUSAND InventorsI In fact, the publishers of this paper have become Identifed with the whole brotherhoodof Inventors paper have become identifed with the whole brotherhoodof Inventors
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whom we have taken out Patents have addressed to us most flattering whom we have taken out Patents have addressed to
testimonials for the serfices we have rendered them, and the wesith which has inured to the Inventors whose Patents were secired through this Oilice, and afterward illustrated in the SCIENTIFIC AMERICAN, wouldamount to many millions of dollars! We would state that we never had a more effcient corps of Draughtamen and state that we never had a more eficient corps of Drauguremen than are emplosed at present in our extensive Olices, and we are prepared to attend to Patent business of all kinda in the quiakest lime and on the most hberal terme.

## The Examination of Inventions.

Persons having conceived an idea which they think may be patent able, are advised to make a sketch or model of their invention, and submitit to us, with a fulldescription, for advice. The points of novelty are carefully examined, and a reply written corresponding with the facts, free of charge. 1 ddress MUNN \& CO., No. 37 Park-row, New York.
Preliminary Examinations at the Patent Once. Theadvice we render gratuitously upon examiningan invention does notextend to a search at the Patent ofllea, to see if a iike invention has been presented there, butis an opinion based upon what tnowledge we may acquire of a similar invention trom the recordsin our Home Offce. But for a fee of \$5, accompanied with a model or drawing and description, we have a apecialsearch made at the United Slates Patent Offce, and a report setting forth the prospecta of obtaining a Pateat ac., made up and malled to the inventor, with a pamphlet, giving in structions for further proceedings. These preliminary examination are made through our branch 0 ce, cordr or $F$ and Seventh-btreets, Washingtone by experienced and competent persons. More than 5,000 such examiuations have been made through this offle during the
past three years. Address
How to Make an Application Por a Patent. If susceptible of one; or if the invention is a chemical production, be If susceptible of one; orif the inventionis a chemical production, he must furnish samples of the ingredients of Which his composition consit, to inventor's name marked on them, and sent, whi the government fees by express. The expreas charge should be prepald. Small modelis rom money is by dref on New Fork payable to the order of Munn $\mathrm{Co}^{2}$ money is by draft on New York, payable to the order of Munn \& Co. prats not convenient to do so, there is but little ristin iending bant bulle br mall, haring the letter registered by the postmastar. Addrew MUNN ${ }^{4}$ Co No. 57 Park-row, New York.

## Caveats.

Persons desiring to file a Caveat can have the papers prepared in the shortest time bysending a sketch and description of the inventio The gever law, is $\mathbf{\$ 1 0}$. A pam glish and Germen, furnished gratis on spplicstion by mail. Address MUNN \& CO., No. 37 Park-row, New York.

Foreign Patents.
We are very extensively eagased in the preparation and securing of Patents in the various European conntries. For tha transaction of this business, we have oflices at Nos. 66 Chancery-lane, London; 29 Boule
 bits secured to American citizens are procured through our Agency. Inventors will do well to bear in mind that the English law does nct limit the issue of Patenta to Inventora. Any one can take out a Paten there.
Criculars of information concerning the proper coarso to be pursued quirements of diferent Patent Oflcas, $A C$., may be had eratis upon apploation at our princine oflloe, No. 57 Park-row, New York, or alther of our Branch OMcea.

## Rejected Applications.

We a reprepared to undertake theinvestigationand prosecution of re fected cases, on reasonable terme. The close proximity of our Waak ington Agency to the Patent Ofllce affords us rare opportunities for the ramination and comparison of references, models, drawings, documents, $\boldsymbol{d}$ c. Our successin the prosecution of reiected cases has bee erygreat. The principal portion of our charge is generally left pendent upon the final rasult.
All persons having rejected cases which they desire to have prose ated are invited to correspond with us on the subject, glving a bri history of the case, inclosing the ofllial letters, \&c.

## Agsignments of Patents.

The assignment of Patents, and agreements between Patentees and manufacturera, carenuly prepared and placed upon the records at the Patent Ofllce. $\triangle$ ddress MUNN \& CO., at the Sclentific $\triangle$ merican Pat entagency, No. 37 Park-row, New York.

It would require many columns to detail all the ways in which the nventor or Patentee may be served at our oflcea. We cordially invite all who haveanything to do with Patent property or inventions to call at our extensive oflces, No. 37 Park-row, New York, where any queslons regarding the rigits of Patentees, will be cheerfully answered Commumications and remittances by mall, and modela by exprese (prepald), should be addreased to MUNN \& CO., No. 37 Part-row, New York.

C. H. McC., of Ill.-We briefly alluded recently to the subject of your letter upon the taxation of patented articles. Th question is one of great importance to our manufacturers of suc articles. The tar reallyappears to be unjust to them. It would perhaps be more wise to lay a heavier tax upon fixed property and exempt manufactured articles.
T. P. P., of Mass.-We know of no apparatus for indica ting the exact weight of water except the tube scale attached measure. There are a variety of water meters, for determining the quantity of water that passes through a pipe. Engravings of sev eral of these devices have been published in our paper. We hardly know which is practically the best. It we are not mistaken you will be able to see some of these in operation at the offce of the Cochitu ate Water Works, Boston, Mass. Your plan of measurementfor the intended purpose is very good. We should be pleased to receive any articles that you think would interest our readers.
A. H., of C. W.-The idea of putting elastic plating on the sides of ships is not new. It is now being tried upon one of the gunboats in the Mississippi river. Your projective is uld and we thin your ballooning apparatus of doubtrul novelty and utility.
C. S., of N. Y.-If you have not the means wherewith to try your experiments, and cannot procure aid from some friend to least.
M. J. K., of N. Y.-Your plan of raising heavy guns into a turret like the Monitor's and lowering them at every discharge we think would be impracticable. If they could be thus raised and lowered there would be no occasion for a turret ; and possibly with out the supports of a turret in the way the plan might be made to work. It does not seem very promising, however
. F. A., of N. Y.-Probably the reason why the two indi cator cards of which you speak, are not alike in that portion of the ried over from the was cut off, is thatin one cas pasure duced in the cylinder.
C. A., of Mass.-The only portion of your communica tion that has any interest you request us not to publish.
T. B. M., of N. J.-Overman's work on " The Manufactur of Iron," published by Henry C. Baird, of Philadelphia, contain directions for making sheet iron.
E. B. H., of Me.-The answer to your question whethe the prevalent diseases of the throat are caused by burning coal oil would be very interesting if an answer could be given with any cer talnty of its correctness. But the cause of disease is by far the mos obscure branch of medical science, and we presume that physician would be very much divided in the answers they would give to your question.
. C. E., of Mo.-The plan you suggest, of attaching an cuttingen similar to a pair of scissors to the muzzle of a gin for has been of the cartridge, is very good, but it is not new. A paten patent you can only use the improvements you have made; not any portion which is covered by the claims of the first patentee, without his con sent.
A. W., of Ohio.-The question of the inferiority of the African race is one that we have never investigated in a scientific point of view, therefore we do not propose to disouss it. The more itis disoussed the more diversity of opinionthere will be on the sub. ject. Such diferences as do really exist are appreciable to the
H. H., of Mass.-There is no novelty in providing projec tiles with from another as you propose. Considering your projectile as whole, we have never seen anything precisely like it, and think probable a limited claim might be made on it.
. C., of Ind.-Concrete for underground walls is made by misingdry,one peck of good hydraulic cement with two peck sof clean gravel, then wetting the mirture and usiog it immediately as a mortar for laying the wall. Or boards may be be made so thin that it can be poured into the trough together with the stones to form the wall. Unless hydraulsc cement to used immediately aftor it is wet, it is worthless. It becomes hard in a few minutes.
S. E. J., of N. Y.-We are not able to advise youin regar to the practical value of the rooing cement to which you refe You should cormespond the
S. L. E., of Mich.-The caloric engine answers a good purpose where but little power is required.
A. C., of N. B.-We will keep your model subject to your order. It at any time you should decide to apply for a patent you may depend upon our best services.
J. G. N. of Vt.—We advise you to procure Brewster's Optics. It is a smali work but will answer your purpose.
A. C., of N. Y.-There is no limit to the velocity of a projectile resulting from the resistance of the atmosphere; but the higher the velocity, themore rapialy it is reduced by this resistance. Prof Norton, of New Haven, estlmated the velocity of one of the large meteors at 21 miles per second. An air gun does make a re port louder than that of a pop gun; the thickness of the barrel would modiry the sound.
W. L. T., of Pa.-Black is dyed on wool by different pro cesses. You can doit in a very simple manner by boiling the woo for half an hour in a liquor in which two ounces of the bichromat of potash, and one pound of fustic is used for every eight pounds of wool. Take it out aud air it, then boilit for a full hour in logwood liquor containing the extract of three pounds of logwood chips After this it must be thoroughly washed. If it has a grey or slat appearance, it is a sign that it has not received a suflicient quantity of logwood; if it is rusty and brown, it is a sign that the logwo liquor was too strong. Remove a portion of the logwood by rinsing water. There are several other methods of coloring wool black.

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