## Foreign Patents.

We are very extensively engaged in the preparation and securing of Patents in the various European countries. For the transaction of this business, we have ofllces at Nos. 66 Chancery-lane, London; 29 Boule vard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that teree-fourtes of all the European Pa recred to Amertan chzens are procured through our Agency. Inventors will do well to bear in mind that the English law does nct imit the issue of Patents to Inventors. Any one can take out a Paten here.
Circulars of information concerning the proper course to be pursued In obtaining Patents in foreign countries through our Agency, the requiremeuts of different Patent Ofilces, sce, may be had gratis upon ap. plication at our principal oflce, No. 37 Park-row, New York, or either of our Branch Offces.

## Assignments of Patents.

The assignment of Patents, and agreements between Patentees and manufacturers, carefully prepared and placed upon the records at the
Patent Ofllce. Address MONN \& CO., at the Sclentific American PatPatent Offlce. Address MUNN \& CO., at the Sclentific American Pa entagency, No. 37 Park-row, New York.
It would require many columns to detail all the ways in which the Inventor or Patentee may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call tour extensive offices, No. 37 Pars-row, New York, where any questions regarding the rigats of Patentees, will be cheerfully answered. Communications and remittances by mail, and modele by express
(prepaid), should be addreased to MUNN \& CO., No. 37 Park-row, New (prepa

## TO OUR READERS.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on Design Patents, when two good drawings are all that is required to accompany the petition, specification and oath, except the government fee. Invariable Rule.-It is an established rule of this office to stopsending the paper $w n$ he timefor which it was pre-paid has expired.
Patent Claims.-Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this offlce, stating the name of the patentee and date of patent, when known, and inclosing $\$ 1$ as fee for copying. We can also furnish a sketch of any patented machine issued since 1853 , to accompany the claim, on receipt of $\$ 2$. Ad
Receipts.-When ifiney is paid at the office for subscriptions, a receipt forit will always be given ; but when subscribers remit their money by mail, they may consider the arrival of the firs New Pamphlets in German.-We have just issued a revised edition of our pamphlet of Instructions to Inventors, containing a digest of the fees required under the new Patent Law, \&c., printed in the German language, which persons can have gratis upon appli cation at this office. Address

MUNN \& CO.,

## (4)

A. Y. McD., of Iowa.-W Wen a cubic inch of air is heated in a confined space up to $491^{\circ}$ Fah. It exerts a pressure of 15 lbs . on the square inch. Air at the freezing point expands 1-491st part of its hulk for every addeddegree of heat on Fahren beit's scale. Airnever can be used to advantage under high pressure, because it only exerts 30 lbs. pressure on the square inch when heated to $982^{\circ}$ Fah. which is almost red temperature. We have no statistics of experi-
M. N. of N. Y.-If you wish to know how to preserve a collection of birds, reptiles, insects \&c., you should write to some bookselier in this city and obtain a work on the subject.
H. D., of Mich.-We do not know what your ideas are respecting a perpetual motion. If you think you have invented a machine capable of setting itself in motion and continuing through-
out all time, then you are probably following on a wild-goose chasethe thing cannot be done. Whenever you can succeed in lifting yourself oyer a fence by seizing hold of the waistbands of your pantaloons, then you can invent a perpetual motion. Do not waste your inventive genius in trying to create that which man has no
J. E., of N. H.-The weighing and packing machine to which you refer, was exhibited at the Crystal Palace, in the fall of 1853. Yoy will find an engraving of it in the Scirntific American, delphia. $\qquad$ --A great many modifications have been made in skates and a large number of patents granted. We have seen an arrangement somewhat hike yours and have therefore intend to prosecute the case further to have a preliminary examina tion made at the Patent Office If you had given us your PostOfice address we should have written to you by mail.
L. C. C., of Mass.-A About 13 cubic feet of atmospheric air weighs one pound. Hence to float $2,240 \mathrm{lbs}$. in the air would require a balloon of a capacity of 29,120 feet, provided the balloon was entirely empty and had no weight. But to support the weight we must have about 36,000 cubic feet of displacement
A. H. B., of Mass.-If a propeller made a complete turn or convolution around its axis, its length measured along its axis may form, its plich is the length of a complete convolution at the may form, its plich
same rate of twist.
D. D. B., of Ohio.-Yourmethods of solving some problems in trigonometry do not appear to us any shorter or more convenient than those usually employed.
D. McK., of Pa.-Simply applying an old process to a new use is not patentable. To enable us to judge in your particular case we shall need to know all the facts. A very slight change in com binations will often produce important results.
W. S., of Inl.-Cheap black varnish for metal work is made by dissolving 45 lbs. of powdered asphaltum in 6 gallons of prepared boiled inseed oil. Heat the whole in an iron vessel and stir until use with turpentine. When this varnish is put on iron work, the latter should be baked in an oven heated to about $23^{\circ}$. A finishing coat of lac varnish gives the metal a more beautiful surface.
J. H. C., of Md.-It is not stated that Reynaud's new French powder described on page 8, current Vol. Scientifio AmericAN, is a good substitute for common gun powder. It may be very excellent for blasting rocks and coal in mines, as it is comparatively o manufacture
K. B. C., of Pa.-If you go to London yourself there is no doubt about your being able to get your articles into the great exhi-
bition, if presented in time. We suppose exhibitors will be admitted bition, if presentedin time. We
free. This is always customary.
free. This is always customary.
P. H. W., of N. Y.-By reference to the card of Richard Kitson, in another column, you will learn where you can purchas a picker.
R. W. H., of N. Y.-You can obtain a camera of Messrs. Pike \& Sons, of this city.
W. B. G., of Ohio.-The name of Silliman's Journal is the American Journal of Science and Arts. It is now in Its XXXIII Vol
 man, J.. and James D. Dana, at He Hen, The price is five dol lars per year. The January number is one of the best we have ever lars per
W. J. L., of $\mathrm{N}_{:} \mathrm{Y} \cdot$ - $_{\text {- The precession }}$ of the equinoxes is just as simple as the wabbing of a top; but if you try to misunderstand it "you will doubtless succeed.
A. M. K., of Conn.-You will find a description of artif cial ivory on page 112, Vol. XIV. (old series) Scientific Anerican. White nilde of zinc mired with soluble glass, or white shellac var nish makes artificial ivory. Fine white chalk mixed with aclearvar nish makes a white cement, that may be molded into any form and when dried in an oven it partially resembles ivory. We have seen several compositions intended to be used as substitutes fo ivory, but none of them possessed the delicate and beautiful appear ance of the genuine article.
J. M., of N. J.-We think well of your improvement in cartridges to obviate the necessity of biting, and are of opinion tha you could obtain a patent forit.
O. P., of N. Y.-To coat cast iron with zinc, first scour it bright with sand and dilute muriatic acid, to remove the oride, then wash it thoroughlyin warm soft water. Melt some pure zino face, and draw the light cast iron articles slowly through this batch of molten metal, take them out and throw them into cold water. It the castings are heavy, they should be dried and heated $t \boldsymbol{t} 212^{\circ}$ before dipping them into the zinc.
. W. K., of N. Y.-You must send as a full description of your alleged improvement in iron punches, and we will give you our opinion respecting its novelty.

Special Notice-Foreign Patent.-The population of Great Britain, is $30,000,000$; of France, $35,000,000$; Beigium, $5,000,000$; Austria, 40,000,000; Prussia, 20,000,000; and Russia, $60,000,000$. Palies. Now is the time, while business is dull at home, to take ad
tren vantage of these immense foreign fields. Mechenical improvements of all kindsare always in demand in Europe. There will never be a better tise liable buines Nearly all of the pate secured in forelgn countries by Americans are obtained through our agency. Address Munn \& Co., 37 Parkrow, N. Y. Circulars about forergnpatents furnished free.

## Money Received

At the Scientific American Office on account of Patent Oflice business. during one week preceding Wednesday, Jan. 22 1862:-
S. and L. A. D., of R. I., $\$ 20$; E. C., of Mabs., $\$ 20$; H. W. M., of . Y., \$20; C. M. S., of Conn., $\$ 20$; W. D. B., of Mass., $\$ 25$; J. C., of Conn., \$25; T. B., of N. Y., \$25; G. B. O., of N. Y., \$15; G. S. L., of ., \$20; G. and B., of Mich., \$25; G. R. S., of Wis., \$15; A. S., of N Y., $\$ 40$; D. C. H., of Pa., $\$ 25$; D. B., of Conn., $\$ 25$; A. J. G., of Mass.,
$\$ 43$; H. B. M, of N. Y., $\$ 10$; J. W. H., of N. J., $\$ 30$; L. and E. D. G., of N. Y., \$15; H. S. J., of N. Y., \$30; J. H. E., of Pa., \$20; A. McG., f N.Y., $\$ 20$; R. S., of N. Y., $\$ 20$; E. D. and R. G., of N. Y., $\$ 20$; G. M. N., of 111. , $\$ 25$; C. E. L. H., of Conn., $\$ 35$; T. S. B., of N. Y., $\$ 10$ L. and B., of N. Y., \$40; C. G., of Mass., \$15; B. M., of Pa., \$10
E. J. L., of N. Y., $\$ 15$; C. and G. M. W., of N. Y., \$250; W. and P., of
O. O., \$15; N. G. C., of N. Y., \$15; R. L. B., of Mich., \$25; J. H., of N. Y., of $\$ 15$; B. J. C. H., of N. Y., $\$ 15$; T. S., of N. Y. $\$ 10$, O. S.,
oft., $\$ 15$; K. H. E., of Vt., $\$ 15$; M. B. W. of N. Y., $\$ 25$; T. O., of of Vt., $\$ 15$; K. H. E., of Vt., $\$ 15$; M. B. W., of N. Y., $\$ 25$; T. O., of
France, $\$ 45$; A.S., of N. Y., $\$ 20$; A.S. K., of Mich., $\$ 20$ C. S., of France, $\$ 45$; A. S., of N. Y., $\$ 20 ;$ A. S. K., of Mich., $\$ 20$; C. S., of
N. Y., $\$ 25$ La B., and D., of In., $\$ 40$; McK. and F. of N. Y., $\$ 15$; N. Y., \$25; La B., and D., of Ill., \$40; McK. and F. of N. Y., \$15;
P. H. D., of N. Y., \$45; G. M. Z., of $\mathbf{O} ., \$ 25$; M. S. W., of Pa., $\$ 25$; C. B. H., of Mass., \$33; W. R. P. of O, \$25: R. J., of O., \$15; J D. S , of Ill., $\$ 20$; M. and S. G. T., of 0. . \$25: J. P., of N. Y., $\$ 15$; J. L.,
of Mass., $\$ 10$; C. P., of R. I., $\$ 15$; C. H. C., of N. Y., $\$ 15$; G. M. H., of Mass., $\$ 10$; C. P., of R. I., $\$ 15$; C.
of N. Y., $\$ 25$; S. W. M., of N. Y., $\$ 40$.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Offlice from Jan. 15 to Wednesday Jan. 22 1862:-
J. R. A., of Pa. ; A. B., of Mich.; M. S. W., of Pa. ; T. O., of France; J. C., of Conn.; T, B., of N. Y.; W. D. B., of Mass.; J. L. P., of $\mathbf{N}$ Y.; C. G., of Mass.; La B. and D., of Ill.; C. S., of N. Y.; G. M. Z., of O.; G. M. N., of Ill. ; H. S., Jr., of N. Y.; C. B. H., of Mass, ; G.
and B., of Mich.; W. R. P., ot O.; O. S., of Vt.; P. H. D., of N. J.; and B., of Mich.; W. R. P., ot O.; O. S., of Vt.; P. H. D., of N. J.;
A. J. G., of Mass.; J. H.S., of N. Y.; M. O. S. G. T., of O.; R. L. B. of Mich. ; M. B. W., of N. Y.; D. C. K., of Pa.; L. and B., of N. Y.; G. M. H., of N. Y.; A. R., of N. Y.; A.S., of N. Y.

## RATES OF ADVERTISING.

Twenty-five Cents per line for each and every insertion, paybie in advance. To enable all to understand how to compute the amoun explain that ten words average one line. Engravings will not be ad mitted into our advertising columns; and, as heretofore, the publishors reserve to themselves the right to reject any advertisement they may deem objectionable.

## THE CHEAPEST MODE OF INTRODUCING INVENTIONS.

INVENTORS AND CONSTRUCTORS OF NEW AND useful Contrivances or Machines, of whatever kind, can have their Inventions illustrated and described in the columns of the SCIENT FIC AMERICAN on payment of reasonable charge for the engrav lng.
No
No charge is made for the publication, and the cuts are furnished to We party for whom they are erecuted as soon as they have been used We wish it understood, however, that no secondhand or poor engrav printing par We also We also reserve herght to acceplor rejectsuch subjects as are pre sented for phblin. And it not our desire to receive orders for engraving and publishing any but good Inventions or Machines, and
such as do not meet our approbation in this respect, we shall decline such as do
to publlsh.
For further particulars, address-
MUNN \& CO.,
Publishers SCIENTIFIC AMERICAN,
New York Citv
W ${ }_{\text {having articles of any description, and particularly machinery, }}^{\text {1862.-PARTIES }}$ patent rights, and any thing in the mechanical hine which thach wish to exhibit at the coming world's Fair, will find it to their interest to in-
trusthem to the subscriber, who was an exhibitor at the World's Fair,
in Paris, 1855 , and has lately returned from Europ, where he made
himself, generally acquainted with all the rules, regulations and genhimselr generailv acqualited with ailt he rules, regulations and gen-
eral arrangements and designs of the Exibitions.
Experince and familiarlty with all the details eminently fit him to act as agent for American exhibitors.
This will offer an unequaled onportunty for selling as well as show.
ing American articles, ot which there are very many, entrrely unknown ing American articles, ot which there are very many, entirely unknown The subscriber will be personally on the ground, to atiend to any business entrusted to him, either connected with the exhibition or mak.
ing sales in London or Paris. His terms will be reasonable, and Partien inmendevoted to the businit must make application for space without
Palay, and all artcles must be in the exhibition before March 31 , delay, and all articles must be in the exhibition before March 31 ,
182. sub subsriber will receive goods intended for the Exhibition ;up to
March $10,1 \geq 62$. March $10,1 \geq 62$.
For further particulars address


A Chisholm's Mathematical Mechanical Scaleand Key ; an instiu-


BRADY'S PATENT CORDER FOR SEWING MAbeen invented in connection with sewing machines. It 18 alr endy ap.
plied to the Wheelerand Wilson and Wilcox and Gibbs machines. It

 ther page. Address O. G. BRADY, No. 440 Brondway, New York.
 county, and is highly pure wheat coffee. It is extensively used in this
for making drinkers. Recipes can be had
or this coffee by addressing WM. M'KAIN, Marietta, Lancas.
N ONPAREIL WASHING MACHINE-THIS MA-


$\mathrm{H}_{\mathrm{oz}}^{\mathrm{oz}}$OUSEKEEPERS' FAVORITE.-M'N AMEE'S CELE. brated invention. Illustrated in this - number. Look and judge

RIFLE BA RRELS.-WEAKE NOW MANLFACTLRINCX

NOVEL STEAM PLOW.-A VALUABLE INTEREST secure a patent; or the invention will be sold on favorable terms. For
particulars address JOHN OSBORNE, JR., Weare, N. H.
$G$ REAT CURIOSITY.-MAGIC CASES AND MAGIC


M whole insects, diatornes, infusoria, sections of wood, navicu-


- PATENT RIGHTS SOLD ON ONTE, Patent Broker, 25 Chambers street, New York. ${ }^{\text {P* }}$
\$T A DAY, TO LADIES OR GENTLEMEN, WHO ACT
 about City Women, or curious remale Characters in New York. Par-
ticulars gratis. Address M. GAUNTT, No. 49 Walker sireet, New York.
eow
WOODWORTH PLANERS—IRON FRAMES TO PLANE
18 24 inches wide, at $\$ 90$ to $\$ 110$. For sale by S. C HILLS,
No. 12 Platt-street. New York.

