Second, The combination of the arms, p and r, of the toggle joint, the tumbler, w, and the trigger, x, as described, that is to say, one f the arms of the toggle joint being connected to the tumbler, w, and the other to a support independent of the trigger, and the triger being so arranged with relation to the toggle joint as to operate lirectly to move the bearing which connects the two parts of the atter, to the opposite side of the line from that which it naturally occupies when the gun stands at full cock, and thus allow the harmer to fall, substantially as and for the purpose set forth.

44,828.—Cotton Picker.—Hennell Stevens. Memphis

44,526.—COULDI PICKET.—HERNEII SIEVERS. MEMPHIS, Tenn.:

1 claim, first, The fingers, A, arranged as shown to form an inclined surface, and provided with notches, a, at their upper parts, substantially as and for the purpose specified.

Second, The shield, E, in connection with the fingers, A, and picker, B, arranged to operate substantially as and for the purpose set forth.

picker, S, arranged to operate substantially as and for the purpose set forth.

Third, I claim the picker, B, placed at such a distance from the fingers, A, that the unripe balls may pass beneath it without being touched, while those in which the cotton protrudes are entangled and the cotto extracted from them.

Fourth, Tne comb, G, in connection with the picker, B, shield, IE, fingers, A, and receptacle, C, all arranged to operate as set forth.

-Hydraulic Pump.—Edwin Squire, Cold Springs.

N. Y.:
I claim, first, The levers, FG I, and links, g i, in combination with the hand lever, h, and supply and waste valves, D E, constructed and operating in the manner and for the purpose substantially as herein shown and described.

Second, The combination of the supply valves, D D', and waste valves, E E', with oscillating levers, FG I, and hand levers, h h', constructed and operating in the manner and for the purpose substantially as herein specified.

This invention consists in the arrangement of two oscillating lev ers and suitable connecting rods in combination with the waste valve and supply valve of a hydraulic press or other similar machine, and with a suitable hand lever in such a manner that by one and the same motion of said hand lever the waste valve is closed when the supply valve is opened, and viceversa, and the [construction of the pressits thereby simplified and its operation facilitated. The invention consists also in combining two sets of waste and supply valves with suitable levers, in such a manner that two presses can be operated simultaneously by the motion of one and the same hand lever, one press being made to discharge, while the other takes water and vice tersa, and each press being made to operate without interfering in the least with the continuous operation of the other.]

44,830.—Slide Valve for Steam Engines.—D. F. Walker,

Potosi, Mo.: plaim a valve, B, provided with a stud, d, and cap, f, and operate n combination with the steam chest, A, in the manner and for purpose substantially as herein shown and described. purpo

44,831.—Roofs of Churches.—Shepherd S. Woodcock, Somerville, Mass., and George F. Meacham, Watertown, Mass.:

B. steaded and held in place by wind braces, b d, in the manner substantially as set forth.

44,832.—Scrubber and Mop.—Wm. S. Bullen (assignor to himself and Wm. O. McIntire), Indianapolis.

Ind.:
Ind.:
I claim the combination of scrubber, D, and mop cloth, E, in one and the same machine, i.e., the mop-head, A, with a deep groove in he under side, and compresser rod, B, operated by thumb screws, firmly clamping and holding in place the mop cloth, E, and scrubing rubber, D, constituting thereby a combined mop and scrubber no me machine.

44,833.—Parlor and Cooking Stove.—David B. Cox and John T. Davy (assignors to David B. Cox and Harvey Church), Troy, N. Y.:

We claim, first, The flue pipes, GG and H (more or less) passing through from the top of the oven to the bottom of the same, in combination with the oven space, J. having fire-chamber and ash space directly over the oven, as described and set forth.

Second, We claim the hook or fulcrum, F, attached to or east on the stove, in combination with the shaking grate, D, operating in the manner and for the purposes set forth.

the stove, in combination with the shaking grate, D, operating in the manner and for the purposes set forth.

44,834.—Driving Wheel of Harvesters.—Daniel L. Emerson, Rockford, Ill., assignor to Mary Manney, Winnebago county, Ill.:

I claim a harvester driving wheel constructed with a tubular rim, substantially as set forth.

I also claim the combination of the tubular rim of the wheel with the cog teeth of the main driving wheel, in such manner that said rim forms the base of said teeth, substantially as set forth.

44,835.—Furnace.—Samuel E. Foster (assignor to himself and Henry F. Cogshall), Fitchburg, Mass.:

I claim in the air-heating furnace or fire-drum and the surrounding air-heating chamber having the fuel throat arranged within the top of the air chamber and with respect to the fuel opening of the top of the air chamber and with respect to the fuel opening of the top of the doorway or throat of the ash-pit or chamber.

And I also claim the construction of each grate bar with respect to the doorway or throat of the ash-pit or chamber.

And I also claim the construction of each grate bar with a bottom projection, I, having a length so much less than the distance between the supporting bars as may be necessary to allow of the grate bar being moyed longitudinally back and forth on its supports sufficiently for the purpose of causing the ashes to be discharged from the fire-drum and between the grate bars.

44,836.—Churn.—Moses Neal (assignor to Neal & Finck),
Kalamazoo, Mich.:
I claim the combination of the dashers with the cup-shaped detachable beaters, constructed, arranged, and operating substantially as described and represented.
[In this churn currents and counter-currents are produced which

causes the cream to collide and surge in such a manner that the churning is rapidly effected.]

44,837.—Construction of Monitor Vessels.—Samuel Parr (assignor to himself. James A. Fox, and John A. Robertson), Boston, Mass.:

I claim the improved monitor or armored vessel as made with the combination of the transverse strengthening partitions with the opposite layers of wood, the cork and iron arranged together, substantially as specified.

44,638.—Machine for making Horse Shoes.—Charles H. Perkins (assignor to the Union Horse Shoe Company), Providence, R. I.:
1 claim the combination of a series of punches with a die, constructed as herein described, operating substantially as and for the purposes specified.
44,839.—Machine for making Horse Shoes.—Charles H. Perkins (assignor to the Union Horse Shoe Company), Providence, R. I.:
1 claim the combination of the compound feeding roller and cutter, C. C., and the friction roller, A, substantially as described for the purposes specified.

44,840.—Machine for making Horse Shoes.—Charles H. Perkins (assignor to the Union Horse Shoe Company), Providence, R. I.:

I claim the method of thickening the ends of horse shoe blanks by the combination of the dies, Cand C', when constructed and oper ated in the manner substantially as described for the purpose specified.

44,841.—Hoop Skirt.—Julius Waterman, New York City.
assignor to himself and Joseph Mayer, Brooklyn.
N. Y.:

: e introduction of the clasps that unite the ends of the

skirt hoops or springs within the pockets formed in the woven tape, substantially as and for the purposes specified.

And in combination therewith I claim the spangles or small claspe introduced near the edges of the tape on each side of the clasp that holds the ends of the wires together, as and for the purposes specified

44,842.—Press.—Joseph P. White (assignor to himself and Thomas Gannon), New York City:
I claim the worms, E, toothed racks, D, with or without bevel gears, c d, in combination with the worms, g, and worm wheels, h, and with the follower, c, of a press-box, constructed and operating substantially as and for the purpose set forth.

substantially as and for the purpose set forth.

44,843.—Injector for the Hair.—Austin A. Smith, Seneca Falls, N. Y.: J
I claim, first, Forming the elastic rim, A, with its sides, a s, so situated and formed that compressing the sides will gradually close the vacuum chamber, from the angle of the periphery, inward toward the center, so as to expel all the fluid, substantially as set forth. Second, I also claim constructing the vacuum bulb with rigid sides or plates, B B, in combination with the elastic ring, A, substantially in the manner and for the purposes described.

Third, I also claim in combination with the flexible vacuum bulb with right sides or plates, B B, in combination with the flexible vacuum bulb, A B, the series of distributing tubes, D, so constructed as to inject a fluid beneath the hair in small jets, substantially as set forth.

Fourth, I also claim the hollow teeth or tubes, D, formed with the eduction orifice, d, on the under concave side thereof, to prevent the same from becoming obstructed, and to direct the fluid downward upon the scalp, and to prevent scratching or tearing, substantially as set forth.

Fifth, I also claim making the neck or base to which the tubes, D, are attached, flexible, so as to render them capable of bending separately or together, to adjust themselves to the form of the head, in whatever position they may be applied, substantially as set forth.

RE-ISSUES.

RE-ISSUES.

8. Pressure Bell.—Wm. L. Bradley, Nathaniel L. Bradley, and Walter Hubbard, West Meriden, Conn., assignees by mesne-assignments of Jason Barton, Middle Haddam, Conn. Patented April 8, 1856: e claim the combination and arrangement of the bell, striking rument arranged to swing in a plane substantially at right anwith the plane of the rim of the bell, and piston extending ugh the axis of the bell, these three operating substantially as orth.

gles with the piane of the bell, these three operating successions through the axis of the bell, these three operating set forth.

We also claim the combination of the bell, striking instrument is mitted to swing across the bell in a plane substantially at right gles with the plane of the rim of the bell, substantially as set to We also claim the combination of the bell, striking instrum piston, and stand, substantially as described, so that the piston, and stand, substantially as described, so that the pistrikes another part of the apparatus before the hammer strike bell, in a plane substantially at right angles with the plane of rim of the bell, substantially as set forth.

rum or the bell, substantially as set forth.

1,799.—Apparatus for manufacturing Cube Sugar.—
Gustavus Finken, Brooklyn, N. Y. Patented Aug.
20, 1861. Re-issued Feb. 4, 1862:
I claim the formation of the cubes, blocks, or lumps from the granular sugar in the manufacture of what I have herein specified as embraced by the term "cube sugar," by means of machinery composed of an endless or rotating series of molds fitted with compressing and discharging pistons, and having applied in combination with them a cam or cams, or their equivalent, for operating the pistons one or more at a time in regular succession throughout the whole of the series, substantially as herein described.

1,800.—Estraw-cultfar —Warren Gela Chicorog Falls

—Straw-cutter.—Warren Gale, Chicopee Falls, lass. Patented Sept. 12, 1854. Re-issued April 3,

1860:

I claim, first, Connecting the cutting and the pressure cylinders of cutters for hay, straw, or other substances, by gearing or its equivalent, in such manner that the knife or each of the knives upon one cylinder shall at every revolution be caused to come in to actual contact with the other cylinder or with some part of the other cylinder, at any desired point to which the parts may be adjusted. Second, The employment in a straw or other cutter of a revolving cutting cylinder, having one or more knives, in combination with a pressure cylinder having one or more radial flanges, arms, or projections, and so arranged that the feed is caught between the two, drawn forward and cut off by the pressure between the knife on one cylinder and the flange on the other.

Third, Forming those parts of the pressure cylinder against which the knife or knives are made to cut, in sections or strips, separate from the body of the cylinder, substantially as and for the purpose set forth.

forth.

ourth, Combining with the feed-box of a straw or other cutter an
ustable throat, having a mode of operation, substantially as set forth, Combining, substantially as set forth, an automatically operating throat, with the cutting cylinder of a straw or other cutter, in such a manner as to diminish the number of knives heretofore employed in ordinary cutters.

ter, in such a manner as commission the number of kinves heretrofore employed in ordinary cutters.

1,801.—Knitting Machine.—Moses Marshall, W. Aldrich, and L. B. Tyng (assignees of said Moses Marshall), Lowell, Mass. Patented March 15, 1853:

1 claim, first, Forming the stitches alternately on each side of the neclaim and operating one needle at a time, substantially as described. Second, The two plates or rests, e and f, or their equivalents, so arranged as to support the two sets of needles, and allow the fabric knit to pass between them, substantially as described.

Third, Connecting the cam boxes, it, which actuate the opposite sets of needles, by means of the arm, 11, or its equivalent, so as to give the proper alternate and relative movements to said sets of needles, substantially as described.

Fourth, Connecting the feeder, which carries the thread, with the arm which connects the cam-boxes, substantially as and for the purpose described.

Fifth, Two sets of single and independent needles crossing at an angle to each other, and those of each set moving in direct or parallel lines, and the two sets operating alternately on each side of said angle, substantially as and for the purpose described.

1,802.—Revolving Fire-arm.—Rollin White, Springfield,

allel lines, and the two sets operating alterhactly in each side of said angle, substantially as and for the purpose described.

1,802.—Revolving Fire-arm.—Rollin White, Springfield, Mass. Patented April 13, 1858:

I claim combining with a fixed barrel a many-chambered rotating cylinder, the chambers of which are made of a cylindriral form to within a short distance of the front end, and there formed with a contraction of less caliber than the diameter of the bell, when such contracted front end is free to move longitudinally from the breech, substantially as and for the purpose specified.

And I also claim in combination with the chambers formed with a contraction at the front end, substantially as specified, the making of the cylinder in two cross parts, so connected that they shall a said of the cylinder in two cross specified.

So the contraction of the combination of a fixed barrel, a rotating cylinder having a series of chambers extended entirely through its objected and rotated that the several chambers may in succession be brought in line with the barrel, and a rotating breech plate to close up the rear end of the chambers of the cylinder, and which is sep rable from, although it rotates with, the cylinder, substantially as and for the purpose specified.

EXTENSION.

aking Paraffine Oil.—James Young, Manchester, England. Patented March 23, 1852. Ante-dated Oct. 7, 1850:

7, 1850: claim the obtaining of paraffine oil, or an oil containing paraffine, paraffine, from bituminous coals, by treating them in manner ein-before described.

TO OUR READERS.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

Models are required to accompany applications for Pat ents under the new law, the same as formerly, except on design pat ents, when two good drawings are all that are required to accompany the petition, specification and oath, except the Government fee.

MATENTS

FOR SEVENTEEN YEARS!

MUNN & COMPANY.

In connection with the publication of [the SCIENTIFIC AMERICAN, have act-ed as Solicitors and Attorneys for procuring "Letters Patent" for

new inventions in the United States and in all foreign countries during the past seventeen years. Statistics show that nearly ONE-THIRD of all the applications made for patents in the United States are solicited through this office; while nearly three-fourths of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in pre paring specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex.Commissioners of Patents:

AS-

last ex. Commissioners of Patents:

MESSERS, MUNN & CO. — I take pleasure in stating that, while I held
the office of Commissioner of Patents, MORE THAN ONE-POURTH OF
ALL THE GUSINESS OF THE OFFICE CARE THEODER TO THE DESTRUCTURE OF
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Judge Mason was succeeded by that embent patriot and statesman, Hon. Joseph Holt, whose administration of the Patent Office was so distinguished that, upon the death of Gov. Brown, he was appointed to the office of Postmaster-General of the United States. Soon after entering upon his new duties, in March, 1859, he addressed to us the following very gratifying letter:

MESSRS. MUNN & CO.:—It affords me much pleasure to bear tests mony to the able and efficient manner in which you discharged your duties as Solicitors of Patents, while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and I doubt not justly deserved) the reputation of energy, marked ability, and uncompromising fidelity in performing your professional engagements.

ments.
Very respectfully, your obedient servant,
J. Holf

Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Holt as Commissioner of Patents. Upon resigning the office he wrote to us as follows:

MESSRS, MUNN & Co.—It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of inventors before the Patent Office was transacted through your agency; and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy.

Very respectfully, your obedient servant,

WM. D. BISHOP.

THE EXAMINATION OF INVENTIONS.

ns having conceived an idea which they think may be patent able, are advised to make a sketch or model of their invention, and submit it to us, with a full description, for advice. The points of novelty are carefully examined, and a written reply, corresponding with the facts, is promptly sent, free of charge. Address MUNN & CO., No. 37 Park Row, New York.

As an evidence of the confidence reposed in their Agency by in ventors throughout the country, Messrs. MUNN & CO. would state ventors throughout the country, messrs. MONN & CO. Would state that they have acted as agents for more than TWENTY THOUSAND inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of inventors and patentees, at home and abroad. Thousands of inventors for whom they have taken out pat ents have addressed to them most flattering testimonials for the vices rendered them; and the wealth which has inured to the individuals whose patents were secured through this office, and afterwards illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! Messrs. MUNN & CO. would state that they never had a more efficient corps of Draughtsmen and Specification Writers than those employed at present in their extensive offices, and that they are prepared to attend to patent business of all kinds in the mickest time and on the most liberal terms.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE. The service which Messrs. MUNN & CO. render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there; but is an pinion based upon what knowledge they may acquire of a similar avention from the records in their Home Office. But for a fee of \$5, accompanied with a model, or drawing and description, they have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a patent, &c., made up and mailed to the inventor, with a pamphlet, giving instructions fo further proceedings. These preliminary examinations are made through the Branch Office of Messrs. MUNN & CO., corner of F. and Seventh streets, Washington, by experienced and competent persons. Many thousands of such examinations have been made through this office, and it is a very wise course for every inventor to pursue Address MUNN & CO., No. 37 Park Row, New York.

HOW TO MAKE AN APPLICATION FOR A PATENT.

Every applicant for a patent must furnish a model of his invention susceptible of one; or, if the invention is a chemical production, he nustfurnish samples of the ingredients of which his composition onsists, for the Patent Office. These should be securely packed, the inventor's name marked on them, and sent, with the Government ees, by express. The express charge should be pre-paid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by a draft on New York, payable to the order of Messrs. MUNN & CO. Persons who live n remote parts of the country can usually purchase drafts from their merchants on their New York correspondents; but, if not convenient to do so, there is but little risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & CO., No. 37 Park Row,

Patents are nowgranted for SEVENTEEN years, and the Government fee required on filing an application for a patent is \$15. Other changes in the fees are also made as follows:—

On filing each Caveat	\$1
On filing each CaveatOn filing each application for a Patent, except for a design.	Šī
On issuing each original Patent. On appeal to Commissioner of Patents.	82
On appeal to Commissioner of Patents	32
On application for Re-issue	33
On application for extension of Patent	βō
On granting the Extension	
On filing a Disclaimer	\$1
On filing application for Design (three and a half years)	31
On filing application for Design (seven years)	\$1
On filing application for Design (fourteen years)	83

Laws, enacted by Congress on the 2d of March, 1961,

now in full force, and prove to be of great benefit to all parties who eo in new inventions

The law abolishes discrimination in fees required of foreigners, as epting natives of such countries as discriminate against citizens of The law abousness unscrimination in fees required of foreigners, six-cepting natives of such countries as discriminate against citizens of the United States—thus allowing Austrian, French, Belgian, English Russian, Spanish and all other foreigners, except the Canadians, to enjoy all the privileges of our patent system (except in cases of de signs) on the above terms. Foreigners cannot secure their inventions by filing a caveat; to citizens only is this privilege accorded

CAVEATS.

Persons desiring to file a caveat can have the papers prepared in the retroins descring to line a caveat can have one papers prepared in the shortest time by sending a sketch and description of the invention. The Government fee for a caveat is \$10. A pamphlet of advice regarding applications for patents and caveats is furnished gratis, on application by mail. Address MUNN & CO., No. 37 Park Row, New

REJECTED APPLICATIONS.

Messrs. MUNN & CO. are prepared to undertake the investigation and prosecution of rejected cases, on reasonable terms. The close proximity of their Washington Agency to the Patent Office affords them rare opportunities for the examination and comparison of ref-erences, models, drawings, documents, &c. Their success in the prose cution of rejected cases has ocen very great. The principal portion

of their charge is generally left dependent upon the final result.

All persons having rejected cases which they desire to have prose cuted, are invited to correspond with MUNN & CO., on the subject giving a brief history of the case, inclosing the official letters, &c.

FOREIGN PATENTS.

FOREIGN PATENTS.

Messrs. MUNN & CO., are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business they have offices at Nos. 66 Chancery lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eper enniers, Brussels. They thins they can safely say that THERE-POURTES of all the European Patents secured to American citizens are pro cured through their agency.

Inventors will do well to bear in mind that the English law does n imit the issue of patents to inventors. Any one can take out a pat-

Circulars of information concerning the proper course to be pursued n obtaining patents in foreign countries through MUNN & CO'S Agency, the requirements of different Government Patent Offices, &c., may be had, gratis, upon application at the principal office, No. 37 Park Row, New York, or any of the branch offices

SEARCHES OF THE RECORDS.

Having access to all the official records at Washington, pertaining to be sale and transfer of patents, MESSRS. MUNN & CO., are at all times ready to make examinations as to titles, ownership, or assignments of patents. Fees moderate.

INVITATION TO INVENTORS

Inventors who come to New York should not fail to pay a visit to the extensive offices of MUNN & CO. They will find a large collection of models (several hundred) of various inventions, which will afford them much interest. The whole establishment is one of great interest to inventors, and is undoubtedly the most spacious and best arranged

MUNN & CO. wish it to be distinctly understood that they do no speculate or traffic in patents, under any circumstances; but that they devote their whole time and energies to the interests of their

COPIES OF PATENT CLAIMS

MESSRS. MUNN & CO., having access to all the patents granted since the rebuilding of the Patent Office, after the fire of 1836, can fur nish the claims of any patent granted since that date, for \$1.

THE VALIDITY OF PATENTS.

Persons who are about purchasing patent property, or patentees who are about erecting extensive works for manufacturing under their patents, should have their claims examined carefully by com octent attorneys, to see if they are not likely to infringe some exist making large investments. Written opinions or the validity of patents, after careful examination into the facts, can be had for a reasonable remuneration. The price for such services is always settled upon in advance after knowing the nature of the invention and being informed of the points on which an opinion is so licited. For further particulars address MUNN & CO., No. 37 Park

EXTENSION OF PATENTS.

Many valuable patents are annually expiring which might readily be extended, and if extended, might prove the source of wealth to their fortunate possessors. Messrs. MUNN & CO. are persuaded that very many patents ar suffered to expire without any effort at extension, owing to want of proper information on the part of the patent tees, their relatives or assigns, as to the law and the mode of procedure in order to obtain a renewed grant. Some of the most valuable grants now existing are extended patents. Patentees, or, if deceased, heir heirs, may apply for the extension of patents, but should give ninety days' notice of their intention

Patents may be extended and preliminary advice obtained by con sulting or writing to MUNN & CO., No. 37 Park Row, New York

ASSIGNMENTS OF PATENTS.

ent of patents, and agreements between manufacturers, carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., as the Scientific American Patent Agency, No. 37 Park Row, New York.
UNCLAIMED MODELS.

Parties sending models to this office on which they decide not to apply for Letters Patent and which they wish preserved, will please to order them returned as early as possible. We cannot engage to retain models more than one year after their receipt, owing to their vast accumulation, and our lack of storage room. Parties, there fore, who wish to preserve their models should order them returned within one year after sending them to us, to insure their obtaining them. In case an application has been made for a patent the model 8 in deposit at the Patent office, and cannot be withdrawn

t would require many columns to detail all the ways in which the centor or Patentee may be served at our offices. We cordially in Inventor or Patentee may be served at our offices. vite all who have anything to do with patent property or inventions to call at our extensive offices, No. 37 Park Row, New York, where any questions regarding the rights of Patentees, will be cheerfully answered.

Communications and remittances by mail, and models by expres (prepaid) should be addressed to MUNN & CO. No. 37 Park Row, New



W. F. M., of Mich.-You propose to draw canal boats along by a rope suspended over the middle of the canal; have you any plan for passing the supports? The resistant to the passage of vessels increases not directly in proportion to the speed, but more nearly as the square of the speed, which precludes the possibility of 75 miles an hour. Even if this speed could be obtained it would require the reconstruction of all existing canals, and the substitution of curves of very long radius in place of the present short curves, or the boats would run ashore from centri-

P. P., of Pa.-There is no alarm that we know of suitable to attach to barns to give warning of thieves, who may attempt to enter them, unless some one sleeps in the barn to hear the alarm. E. Holmes, No. 252 Broadway, has a patent for an electro-magnetic alarm bell, which has been introduced quite extensively into private residences. It is a very complete apparatus and when properly adjusted no window or door could be disturbed in the night without giving the alarm

H. P., of Mass.—We find upon examination that your application was rejected for the want of proper care in the preparation of the papers. Your invention has in our opinion both merit and novelty, and if the papers are properly prepared we see no reason why you cannot obtain a valid patent. In making an assignment you are required to put a five cent reven stamp upon it. Upon a power of attorney to sell rights a fifty cent stamp is required.

E. P. L., of Iowa.- Water can be decomposed in several ways. The easiest is to drive steam through an iron tube filled with red hot iron fillings. The oxygen or the water combines with the iron, setting the hydrogen free. The cheapest plan on a large scale is said to be by the use of coke or coal. This was the plan employed for getting the hydrogen by which the city of Narbonne in France, was lighted. The apparatus was illustrated in the SCIENTIFIC AMERICAN some years ago.

H. P., of Maine. The paddle-wheel described by you does not, we regret to say, embrace any novel features. Abner Chapman, of Vermont, obtained a patent several years ago for a wheel precisely on your plan. He employed spiral shaped buckets or paddles seewed to radial arms, with an open space at the apex of the paddle. The wheel was tried here, but for some reason was not adopted.

S. C. C., of Mass.--Friction gearing is often made of iron but not flat-faced. A series of V-shaped grooves in one pulley ift projections in the other. The objections to cloth-faced pulleys are quite apparent we think without discussion. Λ wide belt of a given tension drives more than a narrow belt of the same tension cause there are more superficial inches in contact on the Though the pressure on each inch may be the same in both cases in the large pulley or belt there are more inches, and therefore it

T., of N. Y.—Mr. Gillespie's idea in comparing the flying of a bird to a vessel sailing on the wind was, that when the forward edge of the wing is the higher and the bird is moving forward, the resistance of the air operates to keep the bird from fall. ing, in the same way that the resistance of the water holds a vesse from drifting to leeward.

R. S. S. Harrison, Baltimore, Md., wishes to corresond with makers of flanged earthen pine

J. U. B., of N. H.-We are not able to advise you in regard to employment. Many othersare seeking for the same in formation. It is a bad time to change.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, Oct. 19, 1864, to Wednesday Oct.

26, 1864:—
J. M., of N. Y., \$25; E. D., of N. Y., \$25; J. M., of N. Y., \$25; A.
C., ot Cal., \$22; H. L., of N. Y., \$45; F. H. P., of N. Y., \$35; H. F.
of N. Y., \$20; L. L., of N. Y., \$20; T. K., of Conn., \$20; I. & W., o,
N. Y., \$15; C. E. L. H., of Conn., \$22; E. S. C., of Mass., \$20; T. M.,
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