

ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING DECEMBER 24, 1861.

Reported Officially for the Scientific American

•.• Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, speci-fying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

NOTE.-The following list of claims comprises a little more the issue of December 24, the remainingportion not having been sent to us in time for publication in this issue. No patents will be issued between Dec. 24, 1861, and Jan. 7, 1862—the issue of the 31st ult being omitted—and patents which should have been granted on that day will hear the date of Dec. 24.

2,972.—Charles Alger, of Hudson, N. Y., for Improvement in Breech-Loading Ordnance:
I claim the spherical breech piece, B, having a central opening, g, and the hollow screw, C, applied in combination with each other and with the barrel or body, A, of the gun, substantially as described.
2,973.—Trangott Beck, of Newark, N. J., for Improved Apparatus for Bracing the Yards of Vessels:
I claim the combination and bangement of the cone barrels and the tightener, with the braces, tobatantially in the manner and for the purpose specified.
0.014. Of A Blabs, of New York City, for Improvement

S. A. Blake, of New York City, for Improvement 2.974.

2,975.—W. A. Brown, of Philadelphia, Pa., for Improve-ment in Railroad Car Ventilators :

ment in Railroad Car Ventilators : I claim a veniliator, consisting of the horizontal cylinder, B, with its conical rusta, b' b', the interiorspiral passage formed by the partition, d', in the rear end of cylinder, B, with the vertical cylinder, C, with its adjustable valve, F, the said parts being constructed and combined together with each other, substantially as described, and applied near each end of the roof, A, so as to operate in combination with the car in motion on a track, in the manner set forth and for the purposes areacting of the roof. motio cified.

2.976

cinea. 76.—John O'Bryan, of Owego, N. Y., for Improvement in Truss Pads: claim the construction of the pad, consisting of the two cups, the cal spring and the adjusting screw, all combined and operating in manner set forth.

the manner set forth. 2,977.—Andrew Buchanan, of Jersey City, N. J., for Im-provement in Steam Engines: I claim, first, The arrangement of one or more parallel motions, E, in combination with a slide valve, A, substantially as and for the pur-pose set forth. Second, The employment of a valve, A, with corrugated sides and ends, or with a corrugated back, in combination with the oblong bear-ing, h, of the pivot, a, which connects the valve to the parallel motion, E, substantially in the manner and for the purpose shown and de-scribed.

E, substantiany in the manner, and the probability of the series. Third, The rising and failing frame, D, in combination with the valve, A, and with an classic diappragm. F, or its equivalent, constructed and operating substantially as and for the purpose specified. Fourth, The combination of the bell crank lever, G, or its equiva-lent, with the rising and failing frame, D, and valve, A, substantially in the manner and for the purpose set forth.

ieni, 2.978

a tne manner and for the purpose set forth. ,978.—M. D. Budd, of Roscoe, Ill., for Improved Machine for Cutting Bolts : I claim forming the jaw, B, of two parts, c d, connected by a joint, , said parts, c d, being provided respectively with a hook, k, and totches, 11', and all arranged substantially as shown, whereby the ways, AB, and their cutters, C, may be distended or spread apart at greater distance than they otherwise could be, and admit bolts or ivers which vary materially in size, being cut with one and the ame implement. ja wa a gre rivets

The object of this invention is to obtain a simple hand implement for cutting off bolts and rivets, and one which may be used for oper-ating upon larger work; that is to say, capable of cutting through bolts and rivets of largerdiameter than the ordinary implements of the sam dimensions.]

2,979.—P. Canhanpe, of New Lebanon, N. Y., for Im-provement in Making Capsules of Copaiva: I claim, first, The arrangement of the shoulder, c, on the mold, A, as and for the purpose, as shown and described. Becond, Dipping the capsules, A, after they have been charged, into some suitable composition, as described, for the purpose of closing them, and to produce an even and searlies surface. [The first part of this invention relates to an improvement in the molds new which the capsules are formed and it constraint in turning the

molds over which the capsules are formed, and it conststs in turning the upper ends of saidmolds down in such a manner that a shoulder is formed, which considerably facilitates the closing of the capsules formed over said molds. The second part of this invention relates to them after they are filled with copavia into the same composition, from which they are made in such a manner that capsules are produced which present a perfectly smooth and seamless surface.]

2.980. -M. D. Cohen, of Philadelphia, Pa., for Improve-

ment in Coverings for the Head: I claim the combination, with furlaps and apron, or either, of an lastic or adjustable belt, in front and brace bands on top, arranged in he manner and for the purposes set forth.

100 masiner and for the purposes set forth.
2,981.—Jeremiah Fink, of Baldwinsville, N. Y., for Improvement in Cultivators:
I claim combining with the beam, A, of a shovel plow, the triangular or double brace wings, E E, substantially as and for the purpose specified.

cined. 2,982.—Thaddens Fowler, of Richmond Valley, N. Y., for Improved Marking Brush: I claim the hollow arm, c, inclined upward, from the reservoir, a, and the brush, i, at the end thereof, arranged in the manner and for the purpose specified. I also claim & rauging the marking brush, i, spring, o, and screw, g, aubstantially as as of forth, whereby the flow of liquid is regulated by the mo ion of the brush, when pressed upon, as set forth.

2,983.—I. N. Fryatt, of Belleville, N. J., for Improvement in Refining and Crystallizing Sugar: I claim the process, substantially as specified, for the admission and use in the vacuum pan of alcohol as a divisor of the crystals after the sugar has parted with all or nearly all its water of solution, for the pur-pose of rendering the mass miscicle, and thus permit its easy flow or exit from the pan or evaporating vessel, and also be capable of net-

ting or arranging its crystals, and parting with its fluid portions and coloring matter, whereby I am able to obtain a larger per centage of crystals than by the method before known.

2,984.—D. C. Gilliland, of Brownsville, Ohio, for Improve-ment in Cultivators: I claim the combination of the draft beam, A, hinged beams, B and C, removable sharks, a b c, and attachable shares, H, showels, I, and rake, J, all constructed, arranged and employed in the manner and for the purpose shown and explained.

the purpose shown and explained. 2,985.—Rhesa Griffin, of Syracuse, N. Y., for Improvement in Machines for Punching Boiler Plates : I claim a series of rods or bars, with cathes or hocks arranged be-tween two parallelways or tracks, for a platform to travel on, thereby forming a rack, as seen at d. Fig. 2, for the latch or pall, i, as seen at Fig. 4, to set against when let down by side, Y ; also, the sway bar, n, and form of the catches, and the manner of connecting them to the sway bar, n; also, side. A, attached to the platform, a, by set screws, k K, Fig. 3, to side. A, attached to the platform, a, by set screws, k K, Fig. 3, with a slot in it, at right angles with the platform set is also seen at A. Fig. 5, with morable dies, tt, with holes in them for the purpose mentioned.

2,986.— William Hart, of **May**ville, Wis., for Improvement in Clock Escapementa:

2,960.— William flatt, of meyvine, wils., for improvement in Clock Escapement; I claim, first, The escapement; composed of a revolving crank pin or ecceptific wilst, c, working within a slot, 3, in the pendulum rod, substantially as specified. Second, Arranging the pendulum stud, e, in a plate, f, fitted to oscil-late about the axis of the spindle which carries the crank pin or eccen-tric wrist, c, substantially as and for the purpose set forth.

2,987.—G. C. Hathaway, of Plymouth, Mass., for Portfolio and Writing Tablet : I claim the combination of a tablet, made substantially as described, with a factible portfolio, for the purpose set forth.

2.988

110 a namole portollo, for the purpose set form. .988.—O. T. L. Heine and E. Prussing, of Ohicago, Ill., for Improvement in Journal Bozes: We claim the construction of friction or antifriction rollers, with oles or passages cut of drilled through them, for the purpose of re-ising and distributing oil or other lubricating material upon the shaft, itc, pholos and rollers, in combination with the peculiar mode of edging, in the manner and for the purposes described. We

2,989.—S. F. Hodge, of Detroit, Mich., for Improved Stamp Head for Quartz Crushers: I claim the construction of stamp heads for crushing ores, of two metals, one of which is of greater durability than the other, the two metals bearing the relation to each other described, so as to wear away unequality on the working face of the stamp head, and thus insure the gradual production of an undulating, corrugated or honeycomb crush-ing face.

2,990.-W. H. Joeckel, of New York City, for Improved Seat for Schools, &c.: I claim, first, The siding, tilting or vertically-adjustable seat, D, In combination with the vertically-adjustable desk, F, substantially as de-cribed.

scribed. The plate, H, provided with the pins, b b, and projections, Becond, The plate, H, provided with the pins, b b, and projections, c, and stlached to the upper end of tube, G, in combination with the guides, d d, attached to the under side of the seat, D, and provided with the notches, e e, the plate, H, being filted between the guides, d d, and all arranged as shown, to admit of the sliding backward and the tilling of the seat, as described.

2,991.—W. B. Johns, of Georgetown, D. C. for, Improve-ment in Portable Fireplaces: CI claim the construction of the ireplace or stove, so that its sides and top shell fold compactly together, for transportation, and when set up for use shall unoid, so as to furnish a space between the outer and inner plates, to be filled with sand, or its equivalent, substantially as and for the purpose specified. I also claim the folding mantle plate, E, in combination with the fireplace, as described.

2,992.—W. B. Johns, of Georgetown, D. C., for Improvement in Saddle Leggings: I claim, as a new article of manufacture, constructing the leggings, with the adjustable openings, C and B, to be attached to the saddle retained upon the person, in the manner and for the purpose, substantially as specified.

2,993.-G. S. Knapp, of Dubuque, Iowa, for Improvement in Harvesters: I claim the attaching of the zxles of the wheels, C D, of a harvester or other mounted agricultural machine to arms, e H, connected to the frame, A, or body of the machine, and to a shaft, F, substantially as and for the purposes set forth.

['This invention consists in having the body of the machine r I his invention consists in having the body of the machine monitor on wheels, which are provided with adjustable aries, so arranged that the axies of both wheels may be elevated and depressed simultaneous. ly, and the body of the machine readily raised and lowered at the will of the driver or attendant.]

2,994.—L. G. Kniffen, of Worcester, Mass., for Improvement in Mowing Machines: I claim, first, The combination with the front inner corner of the main frame and rear inner side of tongue, D, of shoe, I, coupling or connecting piece, A, bent bearing piece, O, its pulley, m, chain, n, and laver, P, substantially as and for the purposes set forth. Second, The combination of piece, q, and pivoted arm, x, with shoe, I, and lever, P, substantially as and for the purposes set forth. Third, The combination of the rigid track piece, L, with a finger a hinged tongue and the elevating lever, as and for the purposes set forth.

ninged tongue and the closening level, as and the the purposes set forth. Forth. Supporting the front of the framefrom the tongue by means of chain Z, and sern. R, substantially as described. Fifth, The combinations of the metal piece, E, and collar, c, with axie, B, and tongue, D, as described. 2,995.—L. G. Kniffen, of Worcester, Mass., for Improve-ment in Cutting Apparatus for Harvesters: I claim, first, The combinations of the elevations, e, of the guarda, D, bearing pieces, d, and buttons, b, with the finger beam, C, and the cutterbar, E, arranged and operating as and for the purposes set forth.

rth. Second, Elevating the cutter bar, E, and supporting it above the ager beam, in combination with the enlargement of the heel of the ar, as seen at k, Fig. 1, as and for the purposes set forth.

2,996.-C. B. Lashar, of New York City, for Improved Car

2,996.—C. B. Lashar, of New York City, for improved Oar Brakes:
1 claim the combination of the bearing of the brake standard with the brake shoes by mechanism, in such manner that the pressure creted upon the said bearing is propagated to the brake shoes, substantially as described.
I also claim the combination of the brake mechanism of a car with a thrust plate that projects in advance of the bumper of the car, and intervenes between it and the bumper of the sajiccent car when the corps are coupled together, substantially as set forth.
I also claim the combination of the brake mechanism of a car with two reversible thrust plates, each capable of being placed either in the line of motion of the bumper or out of that line of motion, substantially as set forth.
2 997.—T. J. Mavall, of Roxbury, Mass., for an Improve-

2,997.

ally as set forth. 2,997.—T. J. Mayall, of Roxbury, Mass., for an Improve-ment in India Rubber Mats for Foors, &c.: I claim constructing india rubber or guita percha mats, substantially as set forth, i.e., providing the bottom or hasse with vertical projections or starta, of such form and relative arrangement that, while affording great facility for the cleaning of the mat, they shall act upon the boot or shoe not only as a scraper, but also as a brush, and that they shal adapt themselves to and Bt into the irregularities or curved pordions of the same, whereby every portion of the boot or shoe can be readily cleaned. th

cleaned.
2,998.—William McKain, of Conoy Township, Pa., for an Improvement in Mode of Preventing the Destruction of Bolting Cloths in Flouring and Grist Mills:
I claim the combination of the tin-plate beads, A and C, by the flange, B, with the wirescreen, F, the rolling tubular knockers, M N, and arrangement of the winget shaft with the feeding spout, I J, substantially as set forth for the purpose specified.
0000. Solution: Mode of New Hones, Con. Con. Con.

2,999.—Solomon Mead, of New Haven, Conn., for an Im-provement in Hot-Air Furnaces: I claim the combination of the external spiral air passage, A I C,

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internal spiral air passages, PH C', spiral flues, S, and separate con-ducting pipes, g and g', all arranged in the manner and for the purposes shown and exp laimed.

snown and explained.
3,000.—S. G. Morrison, of Williamsport, Pa., for an Improved Canteen;
I claim the application to canteens of a cone or cape of any elastic material, which, by inverting, may form a funnel on the canteen, or removed therefrom may be used as a cap, substantially as and for the purpose specified.

29

purpose specified.
3,001.—David Mumma, of Mount Carroll, Ill., for an Improvement in heating Skin without removing the Hair or Fur:
I claim taking the skin in a dry or tresh state, and immediately immersing them in the tanning liquid, so that sufficient of the liquid remains in the skins, when coming in contact with the second greedlent, to destroy the gum without loosing the An, substantially as specified.

3,002.—Peter Naylor, of New York City, for an Improvement in Casting Balls for Rifles: I claim the employment of a die, 3, at the opening through which metal is poured, in the manner and for the purpose specified.

metal is poured, in the manner and for the purpose specified. 3,003.—A. W. Olds, of Green Oak, Mich., for an Improve-ment in Rotary Harrows: I claim, first, The vertical and interchangeable. adjustment of the wheels, I, ty means of the axies, G, bolts, H H, and slots, H' H', as and for the purpose specified. Second. I claim placing the flange, D, in such position in relation to the sleeve, C, that the axietree, E, may be of one entire piece, as de-scribed.

succes, U, that the anteres, E, may be of one entire piece, as ac-lied. hird, I claim the wedge, F, when placed between the bottom of the age, D, and the articree, E, as and for the purpose set forth. crib Th

3,004.—S. J. Parmele, of Killingworth, Conn., for an Improvement in Corn Shellers: Leiam, first, In combination with one of the second seco

provement in Corn Shellers: I claim, first, In combination with one or more ribbed or toothed shelling cylinders, B B', a concave pressure plate, C, suspended by an unwersal joint, D, substantially as shown, for the purpose of allowing the plate, C, to adjust isself to the ear of corn while being shelled, and and ensure the perfect shelling of the same, as set forth. Second, The ribbed cylinders, B B', concave pressure plate, C, yield-ing screw, F, and door of flap, I, all combined and arranged for joint operation as and for the purpose set forth.

This invention consists in the employment or use of a ribbed cyl-ader having different rates of speed, in connection with a yielding corrugated concave screen, and guard door, so arranged for joint operation that the corn may be rapidly shelled from the ear, and the shelled corn separated from the cobs.]

3,005.—F. C. Payne of New York City, for an Improved Folding Bedstead : I claim a folding bedstead formed by the combination of the three frames, A B C, with a mattrees, D, when arranged as shown and de-scribed, to admit of the frames and mattrees being folded and at the same time form a box or receptacle for the bed clothes, as set forth.

3,006.—William Pierpont, of Salem, N. J., for an Improve-ment in Straw Carriers and Grain Separators for

ment in Straw Carriers and Grain Separators for Thrashing Machines: I claim, first, The combination with the an elongated, perforated apron, operated by a crank or cranks, having the peculiar motion de-scribed, of a series of feeling and separating teeth, b, substantially as and for the purposes set forth. Second, The combination of a tight apron, J, with an elongated apron or pierced platform, hung upon and worked by a crank or cranks, hav-ing the peculiar motion described, connected with and forming a part of the thrashing and separating machine, substantially in the manner and for the purposes described.

and for the purposes described. 3,907.—William Rankin, of New York City, for an Im-provement in Tents: I claim the combination of the lateral hinged, adjustable braces, C, with the divided hinged bars, B, and pole, A, as shown and described. I also claim the combination of the sacking, D, with the hinged ad-justable braces, C, bars, B, and pole, A, substantially as shown and described.

The object of this invention is to obtain a tent which may be put up (rate object of this intention is to comma a test which may be put up or adjusted, and also afford great conveniences for berths, the same being elevated above the surface of the ground. The invention also admits

3,008.—Rensselaer Reynolds, of Stocksort, N. Y., for an Improvement in Friction Clutches : I claim connecting the longitudinally sliding along with the store of the store of

Improvement in Friction Clutches : relaim connecting the longitudinally sliding leeve with the radial arms of the sector friction brakes, so that when the same is liberated the cep-trilugal force generated by the rotation of the brakes before the clutch-ing takes pace, will force the friction brakes, outward against the inner periphery of the fast pulley, and thereby clutch the rame, and by mo-function brakes to more away from the brake pulley in one direction shall, by means of the insult of the loose pulley in one direction brakes to more away from the torsk contact with the inner peri-phery of the fast pulley, thus unoficibility or disconnecting the pulleys by inclined planes, and clutching the same wholly by centrifugal force, substantially as described.

3,009.—A. K. Rider, of Hydeville, Vermont, for an Im-provement in Cut Off Gear for Steam Engines : I claim the employment for controlling the closing movements of the cut-olf valves, of two obliquely arranged sectors or segments, L L, on a shaft or rod, K, which has a longitudinal reciprocating movement and an oscillating movement upon its axis, derived substantially as de-scribed.

3,010.-E. P. Russell, of Manlius, N. Y., for an Improve-

ment in Harvesters: I claim, first, The conical rollers, in combination with the oval or bead on the fiange, as set forth and described. Second, I claim the oval or bead on the fiange, c, either without or with the bevel, from the shaft to the edge of the fiange, as set forth and

3,011.—John Scheeper, of New York City, for an Improve ment in Mode of Securing Carriage Wheel Hubs of

Axles: Axles: I claim the hub, A, axle journai, B, flanged cap, D, pin, b, collar, a, and, e, and screw, d, when combined, arranged and operating in the nanner substantially as described.

The object of this invention consists in a simple and efficient device (The object of this intermediate the same is a same show that a brief for securing carriage wheel hubs on their axies, whereby the attach-ment is made more secure and the wheel prevented from casually working off, while lateral movement of the hub on its axle is also prevented, without interfering with the free rotary movement of the hub, at the same time giving a neater and better finish to the wheel.

3.012

3,012.—Anthony Smith (assignor to hinself and W. H. Brodley), of Hartford, Conn., for an Improvement in Revolving Fi earms: I claim the improved method of ejecting the discharged cartridge by the simple act of inserting a fresh one in the rear thereof, substantially as desoribed, by means of suitable depressions or openings of the frame or stock of the frearm, both in the rear and in front of the per-forsted cylinder, and in line therewith, the cartridge being held in place by the double retaining spring, 1 and 1', or their mechanical equivalents, substantially as shown, so that the said arm may be kept in constant readiness for firing by the single operation of continued loading.

paging. (013.—C. Stauf and C. J. Steinbach, of St. Louis, Mo., for an Improvement in Portable Battery or Platoon Gun : I claim a portable battery or platoor, gun, consisting of a horizontal bambered cylinder, or its equivalent, with divergent barrels, all con-tructed and operated substantially as described and for the purpose et torth. 3.013.

Set form. 3,014.—A. C. Twining, of New Haven, Conn., for an Im-provement in Apparatus for Cooling and Freezing: I claim, first, The construction of freezing cisterns by pipes ranged in stacks, in combination with a supply or an exit pipe and connecting channels conducting the circulation from one stack or clatern to anoth-er; all substantially as above, and whether with or without the coch-Second, I claim the four way cocks in their construction, and the

combination of those cocks, or their equivalent, with the channels and the stacks, or with the starks directly. Third, I claim the equalizer.

Third, I claim the coulizer. Fourth, I claim the combination of the splash pump with the cisterns by pipes and valves, subtautially as above. Full, I claim the combination of an air pump with a tightly covered vessel or vessels, to draw air from the vessels and contents during freezing, by intervening pipes or connections. Birth, I claim the peculiar mode of connecting the stacks with the channels and channels with the cocks, or other-pieces, as shown and described.

3,915 .- William Van Anden, of Poughkeepsie, N. Y., for

an Improvement in Harvesters: Iclaim, first, The combination of the sdjustable bolts, OO, with the adjustable bars, R, and with the main first meand axle, for the purpose and in the manner described. Second, Tbe combination and arrangement of the adjustable cutter barholder, U, and cutter, V, with the finger bar, E, substantially de-scribed, and for the purpose set forth.

nonzer, u, sud cutter, v, with the Inger bar, E, substantially described, and for the purpose set forth.
 3,016.—J. H. Wells, of Brooklyn, N. Y., for an Improvement in Automatic Primer for Firearms:

 I claim, first, The combination with a firearm of a hopper and a slide or its equivalent, which is operated by the cocking and letting go be harmmer of the gun, and by other manipulation of the arm to bring and deliver the priming pills to and at the point of explosion said parts being so constructed and arranged, as described, as to receive the said pills from the mass, without any previous arrangement in order being necessary, and to deliver them slide, in succession, as sat forth.
 Becond, The omothation of the succession, as sat forth.
 Becond, The purpose set forth.
 Third, The construction, as described, of the chamber or reservoir for construction, as described, of the chamber or reservoir compariments of the sum as described, of the chamber or reservoir compariments of the organized with reference to each other that the smaller each other that the smaller or construction, as described or the sum of the organized so formed and arranged with reference to each other that the smaller each exist the print of the organized so forth.

 (017.—John Wilson, of Chicago, Ill., for an Improved Manufacture of Fibrons Waterproof Fabrics :
 I claim the new article of manufacture described, constituting a waterproof fabric, having bothsurfaces capable of securing a club finish. 3.017

3,018.—Joseph Wood, of Red Bank, N. J., for Improve-ment in Frogs for Railroads: I claim the combination of rails, h and l, connected together and provonged from the rails, e and b, with the frogpoint, n, in the man-ner and for the purposes specified.

her and for the purposes specified. 3,019.—James S. Yerk and G. H. Heming, of Tiffin, Ohio, for Improvement in Bridges : I claim, first, The use of longitudinally-described tubes in the con-struction of trues frames, substantially as described. Second, Casting or mobiling the pamels of trues frames in longitudi-nal sections, each section embracing half of the upper chord and cross braces, and a portion of the shoe or heel post, as set forth. Third, The manner above described of connecting the said connec-tions embrace within themselves the shoes or heel post, as stated.

PATENTS FOR SEVENTEEN YEARS.



The new Patent Laws enseted 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

duration of patents granted under the new act is prolonged to The SEVENTEEN years, and the government fee required on filing an appli nation for a patent is reduced from \$30 down to \$15. Other cha 

the feet are also made as follows :--On filing each caveat. On filing each application for a Patent, except for a design. On appeal to Commissioner of Patents. On application for Re-issue. On application for Re-issue. On fallog Disolaturer. On filing Disolaturer. On filing application for Design, three and a half years. On filing application for Design, further wars. On filing application for Design, further wars. 

The law abolishes digorimination in fees required of fore ners, en

continue solutions digeneration in the rest required to the solution of the United States-thus allowing English, French, Beigian, Austrian, Russian, Spanish, and all other foreigners except the Canadians, te enjoy all the privileges of our patentsystem (exceptin cases of designs) the showe terma

During the last sixteen years, the business of proring Patents for new inventions in the United States and all foreign countries has been conducted by Messre, MUNN & CO., in connection with the publica-tion of the SCIENTIFIC ANERICAN ; and as an evidence of the confidence reposed in our Agency by the Inventors throughout the country, we would state that we have acted as agents for more than FIFTEEN THOUSAND Inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of Inventors and Patenteës at home and abroad. Thousands of Inventors for whom we have taken out Patents have addressed to us most flattering which has inured to the Inventors whose Patients were set through this Office, and afterward illustrated in the SOIENTIFIC AMBRICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensiv Offices, and we are prepared to attend to Patent business of all kinds n the quickest time and on the most liberal terms.

# 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 full description, for advice. The points of novelty e carefully examined, and a reply written corresponding with the example of charge. Address MUNN & CO., No. 37 Park-row, New are carefully York

Preliminary Examinations at the Patent Office The advice we rendergratuitously upon examining an investion doe notextend to a search at the Patent Office, to see if a like investion has been presented there, but is an opinion based upon what knowl we may sequire of a similar investion from the records in our Home Office. But for a fee of \$6, accompanied with a model or drawingand

description, we have a special search made at the United States Patent Office, and a report setting forth the pro pects of obtaining a Patent &c., made up and mailed to the Inventor, swith a pamphlet, giving instractions for further proceedings. These preliminary examination are made through our Branch Office, corner of F and Seventh-streets Washington, by experienced and competent persons. More than 5.000 such examinations have been made through this office dur past threeyears. Address MUNN & CO., No. 37 Park-row, N. Y

How to Make an Application for a Patent.

Every applicant for a Patent must furnish a model of his invention If susceptible of one; or if the invention is a chemical production, he nust furnish samples of the ingredients of which his composition consists, for the Patent Office. These should be securely packed, the inventor's name marked on them, and sent, with the government fe by express. The express charge should be prepaid. Small models fro ment fee a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of Munn & Co. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their Newgork correspondents; but, if act convenient to do so, there is but little risk in sending bank bills by mail, having the letter registered by the postmastar. Address MUNN & Co., No. 37 Park-row, New York.

### Caveats.

Personsdesiring to file a Caveat can have the papersprepared in the shortest time by sending a gketch and description of the invention The government fee for a Caveat, under the new law, is \$10. A pamphietofadviceregarding applications for Patents and Caveats, in En-glish and German, furnished gratison application by mail. Address MUNN & CO., No. 37 Park-row, New York.

Foreign Patents. We are very extensively engaged in the preparation and a Patents in the various European countries. For the transaction of this business, we have offices at Nos. 66 Chancery-lane, London; 29 Boule vard St. Martin, Paris; and 26 Rue des Eperonn iers, Brussels, We think we can safely say that THREE-FOURTHS of all the European Patents secured to American Cilzens are procured through our Agency.

Inventors will do well to bear in mind that the English law does no limitthe issue of Patents to Inventors. Any one can take out a Patent there.

Circulars of information concerning the proper conrise to be parsued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon ap-plication at our principal office, No. 37 Park-row, New York, or either of our Branch Offices.

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The assignment of Patents, and agreements between Patentees and manufacturers, carefully propared and placed upon the records at the Patent Office. Address MUNN & OO., pithe Scientific American Pat-ent Agency, No. 37 Park-row, New York.

It would require many columns to detail all the wave in which the Inventor of Patentee may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call atour extensive offices, No. 37 Park-row, New York, where any ques ions regarding the rights of Patentees, will be cheerfully an 0 d remitta sil, and m ls by expr s by ma (prepaid), should be addressed to MUNN & CO., No. 37 Park-row, New

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Models are required to accompany applications for Patents under the new law, the same as formerly, except on Design Patents, when twogood drawings are all that is required to accompany the petition, specification and oath, except the government fee

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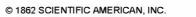
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J. J. B .- You do not give sufficient data for calculating the power of the water in your race. We have very little doubt, however, that you will find it impossible to turn it to any practical ....

- F. B., of N. J.-We are not familiar with the terms upon which engineers are admitted into the revenue service of the co try. This branch of the services is under the direction of the etary of the Treasury, to whom we refer you.
- T. A. H., of Ill.-If you have any doubt about the practicability of your invention, the only way to settle it will be tual trial If you have not the means yourself, you must urself, you must try to get some one to aid you. Inventors frequently do this.
- J. H., of Mass.—We do not know the exact number of the present clerical force of the Patent Office. Business is conducted with considerable alacrity, but cases are not disposed of as rapidly as theyoughtto be.

'Improvement,' of N. Y.-On page 113 of the last volume you will find an lliustration of the machine used in rifling can for the United States army. It is as simple and efficient as any that we have seen described.

A obtained Letters Faten t on improvements in corn planters claim-ing 'check-rowing corn by means of the dropping slides' &c., to do which, at every cross mark he raised or depressed the handles ; and five months subsequent to that, B patented improvements on the same kind of machinery. Several y after that B reissues, and then claims ' operating the seed dropping mechanism by hand or by an attendant in contradistunction to automatic dropping,' at the same time ante-dating six months, does B's re-issue and ante-dating same time and status and mouths, does b's ferieve and and and status prevent A from ante-dating and re-issuing now ?? Ans-No. "Is not B's claim referred to, invalid ? Ans.-Yes, unless he was really the prior inventor. "Could not A secure same claim now by show-ing the originality of invention ?" Ans.-Probably he could. "Are not antedated claims inoperative as against other claims patented within the time covered by the ante-dated claim ?" Ans .- Not nec essarily. It depends on whether or not the ante-dator was in fact the essarily. It depends on whother or not any show and the prior in yentor. "In re-issues are the new claims addifional to the prior in yentor. "In the its out plaims that, on the invention?" original ones, or are they the only claims then, on the invo Ans .- Sometimes the re-issued patent contains the original claims with new ones added, and sometimes the claims are all new. " Can an original inventor preventa subsequent inventor from ma tacturing his invention, if an infringement, however trifling that infringet may be, and thereby monopolize the whole to the public detrient, or can the subsequent inventor, by offering or paying proper tariffs, manufacture and sell against the willof the original inventor?" tarine, manufacture and sen against the write the second market and send the second se nopoly all subsequentimprovements, involving any infringement of original patents, however trifling the infringement, are lost to the inventor and public, if the first inventor objects to their use by oth-ers; whilst, if for a fair compoundion, he would grant to others the right to use, he, they and the public would be all ke benefited." Ans .- We have yetto see the first inventor who was unwilling to receive compensation for the right to use his improvement, the law allows such exclusive monopoly it is wrong, because all 11 nopoly it is wrong, because all subsequent improvements are at the mercy of the original inventor, and inventors become discouraged because their own inventions become uscless in their hands after being patented." Ans.-Practical experience shows that your viewis wrong, and the law right,

O. B., of Ohio, asks the following questions :--- "From among the well known principles of mechanism, as for instance the gearwheel, the crank, the spring, the joint, the pinion, &c., can any one, by applying these to new and useful uses in machinery, be said to have invented anything but an arrangement or combination ?" Ans.-Yes. Something more than a more arrangement might, under certain circumstances, be claimed. "Can a motion, simply considered be a patentable idea, or must a patent attach to some-thing material, or pertain to the device that causes motion ?" Ans.— It depends upon the result produced by the motion. "If motion It depends offour the result produced by the motion. If minion in itself is not patentable, then can a similar motion be produced but by a different device, without infringement upon a former patent, provided, always, it is useful, and a better arrangement than the former," As. If the claim reside upon the production of a mo-ion in a given way, and some other mechanism produced it in a different way the use of the latter machine would not be an infringe-

P. H. W., of N. Y.-You can obtain all the information you require about the picking machines by addressing a letter to the Lowell Machine Works, Mass.

H. G., of Mo.—There was never a more favorable time for you to apply for a patent, and to bring your invention before the pub-lic than the present. The administration of the Patent Office is liberalin its construction of what is patentable. Patenta were granted in 1848, must be extended in 1862 if demanded. Patenta which

A. A. A., of Pa.-We thank you for sending us the description of the boat, and we should publish it if we had dany means of learning that It is reliable.

- E. A. S., of N. Y .- Your idea that the ocean in its deepest parts reaches to the liquid interior of the earth we do not regard as
- A. J. B., o Colorado Ter .- The patentees of the alloy for making dies and stamps, described on page 236, Vol. V. new series SCIENTIFIC AMERICAN, can give you all the information you desire tingits nature and composition.
- C. A. H., of III.--We are not acquainted with any sub-stance or compositiou but india rubber that is capable of rendering muslin water-proof, elastic, and capable of withstanding the heat of without becoming sticky. The discovery of a new cheap id of this character capable of being applied in solution would be invaluable and could not be purchased for a hundred times the sum (\$30) you have offered for it,

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