soon as, or whenever the water enters the tube the pump is co plete and ready to be operated without withdrawing anythin from the tube or inserting anything therein, substantially as show

and described.

52,932.—Feed-adjusting Device for Sewing Machines.—
George Rehfuss (assignor to himself, C. J. Patterson, E. Vincent, A. Hart, M. Moore, A. H. Mitchell and A. H. Reed,) Philadelphia, Pa.:
I claim the c neave disk, C, with its sits, it, and arm, e, constructed and combined with the feed device of a sewing machine, substantially as and for the purpose specified.

52,933.—Magazine Fire Arm.—James D. Smith, Bridgeport, Conn., assignor to Oliver F. Winchester, New
Haven, Conn.:
I claim the combination of the guides, d2 d2, with the hooks, a'a',
upon the breech pin, L, substantially in the manner and for the
purpose set forth.

52,934.—Magazine Fire-arm.—James D. Smith, Bridge-port, Conn., assignor to Oliver F. Winchester, New Haven, Conn.:
I claim the combination of the fixed, A', mortice. D, and carrier block, E, constructed and arranged so as to charge the magazine through the frame and beneath the carrier block, substantially as and for the purpose specified.

2005.—Cletches Swipklar.—Why. E. Stantford (assignor)

52,935.—Clothes Sprinkler.—Win. E. Staniford (assignor to himself and J. Edwin Sherman, Bucksport, Me.; Iclaim a clothes sprinkler made with woolen yarns applied to the part, A, substantially as described.

to the part, A, substantially as described.

52,936.—Braiding Machine for Making Three-strand Braids.—John Taggart, Roxbury, Mass., assignor to himself, J. H. Lester, and Charles D. Ellis, Boston, Mass.:

I claim the combination and arrangement of the four springs, K K K K, with the frog. F, arranged with respect to the racer circuit substantially as specified.

I also claim the arrangement and combination of the frog. F, and its four springs, K K K K, with the frog. F, with the racers and their operative plates constructed in manner and so as to operate as specified.

1 also claim the arrangement and combination of the upright half, z, and its three arms, ya' a', the slider, w, and its pawl, v, with the draft rollers, three racers and their operative plates and frog, as specified.

52,937.—Spring Bed Rottom—Newiel I Willia (accience)

170g. as specified.

5 2,937.—Spring Bed Bottom.—Newiel J. Willis (assignor to himself and Ammi Brown), Boston, Mass.:

I claim the combination and arrangement of the round bars, B C, the springs, b, and their straps, a. such being affixed to the trame, A, and the slats, D, substantially as described.

52,938.—Breech-loading Needle Guns.—John Frederick Christian Carle, Hamburg, Germany:
I claim the stide, g, in combination with connecting rod, r, s piral spring, m, upright, s, and lever, t, substantially in the manner and for the purpose herein set forth.

52,939.—Apparatus for Separating Whey from Curd.—Philip Coombes, Liverpool, Eng.:
I claim, in the manufacture of cneese, separating or removing whey from curd by mechanical means or apparatus, consisting of a pump and filter or selve, substantially as herein set forth and illustrated by the accompanying sheet of drawings.

trated by the accompanying sheet of drawings.

52,940.—Organ, Harmonium, Etc.—William Dawes,
Leeds, Eng.:

I claim giving an improved or increased accent or expression to
organs, harmoniums, and other harmonious keyed instruments, by
imparting to them the mechanical capability of giving or sounding
automatically the air (soprano) or melody only (additionally upon
one or more parts, portions or sections, while the other parts of the
same in-trument are giving or sounding the full chords or harmony
as heretofore, both parts or sections receiving at the same time the
same first motion, action or influence from the keys and player.

same first motion, action or influence from the keys and player.

52,941.—Apparatus for the Manufacture of Paper Pulp.

—James Easton, Jr., Grove, Southwark, Eng., and Francois Thiry, Huy, Belgium:

we claim the passage, E. and movable fire boxes or cars, B. in combination with two or more boilers, A Al A2, constructed and operating substantially as and for the purpose set forth.

Second, The radial arms, 4, and the chains, 4, in combination with the boilers, A Al A2, and with suitable gear intended to give the shart from which the arms, 4, extend, a revolving motion, substantially as and for the purpose described.

52,942.—Dyeing Yarn, Etc.—Altred Paraf, Mulhouse.

52,942.—Dyeling 1 atril, Lett.—Africu ratari, murinouse, France:

I claim a oxydizing agents in dying and printing, the use of the oxygen ecompounds of chlorine more soluble than those combined with rottasts, such as chlorate of soda, enforate of ammonia, chlorate of barytes, chlorate of strontian, chlorate of ammonia, chlorate of barytes, chlorate of strontian, chlorate of ammonia, chlorate of man canese and enforate of potast, when decomposed by hydrotius silicic acid, either for preparing textile fibers to be printed with steam colors or with aniline black, catochu brown, and similar colors, or by mixing them with colors and dyenn both to oxydize; and to the aniline black, catochu brown, and similar colors, or by mixing them with colors and dyenn both to oxydize; and advantage in adding 2½ to 3 per cent of a salt of protoxide of iron or copper, and print such colors upon cloth prepared in one or more of the above-mentioned soluble chlorates.

I also clair the use of the chlorites and hypochlorites in the place of the chlorates in dyeing and printing.

And also the preparation of animal fibers in copper salts mixed with chloric and chromic acid salts, to enable them to receive anime blacks or other similar colors for dyeing and printing.

52,943.—Compound for Fining, Purifying, and Mellow-France:

52,943.—Compound for Fining, Purifying, and Mellowing Spirituous Liquors.—William Thompson, Dublin, Ireland:

I claim an improved spirituous revinous compound for fining, purifying and incllowing spirituous liquors, containing an admixture of prunes, saccharine matter, water, rectified spirits of wine, and extract or prunes, prepared in manner and for the purposes substantially as hereinbeiore set forth.

52,914.-Wood bending Machine.-Edward C. Harris,

52,944.—Wood bending Machine.—Edward C. Harris, New York City:

Fir.t, I claimbending the fronts of pianos, whether formed of thin sheets of wood gued together and veneered as described, or in one piece and veneered, by forcing such front or block into the concave bed, by applying power to blocks A, and hobling the stuff thus bent in position by claims, B and B, operating on the bending blocks in combination with the heated bending plates, substantially as set forth.

combination with the nearest occasion, forth.

Second, in combination with the above, I further claim the movable supplementary sections, C, arranged and employed in the manner and for the purposes specified.

Parcel of Steam Generators.—Charles F.

ner and for the purposes specified.

52.945.—Fire Boxes of Steam Generators.—Charles F.
Jauriet, Aurora, Ill., assignor to himself and A. J.
Ambler, Chicago, Ill.:
First. I claim the water bridge which is arranged as specified, and is formed of a that spect of metal bent into the form of a semi-tube, with flat surfaces at top and bottom, and applied to a fire box which has those politions of its side and back walls included within the area of the semi-tube entirely cut away, so that there is a perfectly free passage for the witer in at the back and out at the sides of the bridge, substantially in the manner and for the purpose described.

Second, The combination of the stay bals with the scini-tube water bridge, substantially as and for the purpose described.

Third, The combination of the through stay bolts, semi-tube water bridge, and the outer jacket of the fire box, substantially as and for the purpose described.

46.—Apparatus for Generating Gas for Illuminating, Samuel N. Chamberlin, Abington Mass.

Samuel N. Chamberlin, abington, Mass.:

I claim the reservoir with not less than right pans or shelves contained therein, when constructed with a discharge pipe and otherwise, as above described, and used as above described for carbureting atmospheric arr forced through it by this change produced in such arr by this process and by other means.

I claim the column or vessel, A, with a series of pans, a, openings, b, and discharge pipe, d, as herein described.

with two or more wedges, D, operated in the manner and for the purposes substantially as herein set forth. Second, I also claim the combination, and arrangement of the packing cylinder, R, and the screw. II, and the coupling, L, of the piston pipe B, as herein described and for the purpose set forth.

REISSUES.

REISSUES.

2,181.—Hose Coupling.—Ralph J. Falconer, Washington, D. C. Patented June 7, 1853:
I claim, Fist, The hose coupling consisting of two parts so constructed and applied that they ishall be secured when brought together by a movement transversely to the direction of the water course, as set forth.

Second, The means herein shown and described by which the parts of the coupling can be linked or held in position, to advance and complete the loint, as set for th.

Third. A hose coupling in which one of the parts is set or pressed up against a waster imbedded in or permanently secured to the lace of the other part, as herein set forth.

DESIGNS

2,266.—Top Plate of a Watch.—F. A. Giles, New York City

2,267.—Alphabet of Letters.—William H. Page, (assignor to William H. Page & Co.), Norwich, Conn.
2,268 and 2,269.—Trade Mark.—Joseph Schedler, Hudson City, N. J., assignor to The American Lead Pencil Company, New York City. Two patents.

2,270, 2,271, and 2,272.—Plates of a Stove.—Garrettson Smith and Henry Brown (assignors to Abbott & Noble), Philadelphia, Pa. Antedated Jan. 30, 1866. Three patents.

PATENT OFFICE.

PATENTS GRANTED FOR SEVENTEEN YEARS

MUNN & COMPANY.

connection with the publication of the SCIENTIFIC AMERICAN have acted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries dur for new Gaseratons in the United States and in all loreign countries fur ing the past twenty years. Statistics show that nearly ONE-HALF 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 so many years' experience in preparing 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.

Judge Mason, formerly Commissioner of Patents, says, in a letter addressed to us:—"In all your intercourse with the office, I always Observed a marked degree of promptness, skill, and fidelity to the interests of your clients."

Ex-Commissioner Holt says:-"Your business was very large, and you sustained and justly deserved the reputation of marked ability and uncompromising fidelity to the interests of your clients."

Ex-Commissioner Bishop says:—"I have ever found you faithful

and devoted to the interests of your clients, as well as eminently qual-ified to perform the duties of Patent Attorneys."

EXAMINATIONS.-If an inventor wishes our opinion in regard to its probable novely of his invention, he has only to send us a pencil or pen-and-lnk sketch of it, together with a description of its operation. For an opinion, without examination at the Patent Office, we make no charge, but if a

PRELIMINARY EXAMINATION AT THE PATENT OFFICE is desired, we charge the small fee of \$5. This examination in volves a personal search at the Patent Office of all models belonging class, and will generally determine the question of no in advance of an application for a patent. Up to this time we have conducted over ELEVEN THOUSAND Preliminary Examinations, thus showing a more intimate knowledge of inventions at the Patent Office than can be possessed by any other person or firm.

If an inventor decides to apply for a patent, he should proceed at once to send us by express, charges prepaid, a model not over one foot in size, and substantially made. He should also attach his ame and residence to the model.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:-

On filing each Caveat	e 10	
On filing each application for a Patent, except for a design		
On issuing each original Patent.	. 2 ZU	!
On appeal to Commissioner of Patents	\$20	!
On application for Reissue	130	
On application for Extension of Patent	. \$ 50	
On granting the Extension		
On filing a Disc laimer	\$10	ı
On filing application for Design (three and a half years)	\$10	i
On filing application for Design (seven years)	\$15	
On filing application for Design (fourteen years)	\$30	

Canadians have to pay \$500.

FOREIGN PATENTS,-Messrs, MUNN & CO. have had more ex perience than any other solicitors in this country in procuring for eign patents, and have old established agents in London, Paris Brussels, Berlin, Vienna, and other large cities. Foreign business should never be intrusted to other than experienced agents.

Messis, MUNN & CO, give special attention to the preparation of

Caveats, and to the prosecution of the EXTENSION OF PATENTS, Reissue of DEFECTIVE PATENTS, REJECTED CLAIMS, INTERFERENCES, and DISCLAIMERS. They also prepare ASSIGNMENTS. LICENSES, AGREEMENTS, and CONTRACTS, in reference to Patents and will advise patentees when their rights are infringed in refer ence to bringing suits against INFRINGERS. In connection with a Patent Lawyer of eminent ability, they prepare and conduct cases in the United States Courts. Indeed, there is no branch of Patent business which MUNN & CO. are not prepared to undertake.

If an inventor wishes to apply for a patent, all he has to do is to write to us freely for advice and instruction, and he will receive prompt attention. If his invention contains any patentable fea tures, he can depend upon getting his Letters Patent. All commu nications considered confidential. Send models and fees addressed MUNN & CO

No. 37 Park Row.

TO OUR READERS.

52,947.—Pump for Oil Wells.—Walter S. Wilkinson,
Baltimore, Md.:
I claim the cone, F, attached to a hollow screw, H, in combination

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a PATENT CLAIMS.—Persons desiring the claim of any in-vention which has been patented within thirty years, can obtain a: \$2 a year. Address FOWLER & WELLS, 389 Broadway, N. Y. 11 2

copy by addressing a note to this office, stating the name of the pat entee and date of natent when known and inclosing \$1 as fee for copying. We can also furnish a sketch of any pater issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York,

RECEIPTS.—When money is paid at the office for sub scriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona-fide acknowledgment of our reception of their

NEW RATES OF ADVERTISING.

FORTY CENTS per line for each and every insertion, pay able in advance. To enable all to understand bow to calculate the amount they must send when they wish advertisements published we will explain that eight words average one line. Engrayings will not be admitted into our advertising columns, and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem objectionable.

CHARLES A. SEELY (LATE PROF. OF CHEMIS-TRY in the N. Y. Medical College), Consulting and Analytical Chemist, 246 Canal st., N. Y. Advice, instruction, investigations etc. Analyses of metals, minerals, commercial products, etc. 12

WANTED—A GOOD WATER WHEEL AND STEAM Engine Governor, to sell on commission, by J. E. STEVEN-SON, Hydraulic Engineer, No. 40 Dey street, New York. 112*

50.000 BUSINESS MEN.—ADDRESS FOR Providence, R. I. Costs, with book, by mail, \$1. Copies quickly and well. Thousands already sold. Stationers and agents applied. 1.

A NEW WORK ON MODERN MARINE ENGINEERING, applied to Paddle and Screw Propulsion.
By N. P. BURGH, Engineer.
To be completed in 15 parts, demy quarto, comprising 300 pages of letter-press matter, inustrated by 30 highly-duished Colored Plates of Engines, etc., and numerous illustrative Wood Cuts.
Price \$1 50 per part. Part I. ready shortly.
D. VAN NOSTRAND, Publisher, 192 Broadway.

WILL BUY A GOOD, SUBSTANTIAL BUY A GOOD, SUBSTANTIAL BIR and with one molder, but capable of exceeding that amount by tar, of PREY, SHECKLER & CO., Bucyrus, Ohio.

WANTED-TO CORRESPOND WITH SOME PERSON WANTED—TO CORRESPOND WITH SOME PERSON with capital and experience in the manufacture of agricultural implements. To such a person we are prepared to offer superior inducements in the way of steam power, castings, and from work. Portsmouth offers superior advantages for such an establishment, being the central point for a great farming country, with every facility for transportation, by river, railroad, and canal, and with an abundance of the best timber, and no opposition. Address MURRAY, MOORE & CO.,

1*

Portsmouth, Ohio.

REMOVAL.—WM. H. HOAG, SOLE MANUFACTUR-FR OF TALPEY'S PATENT COMBINATION HAND SAW MILL, and his recently patented Scroll Saw. Chism's Patent Shin-gle Machine. Removed to No. 222 Pearl street. Post Office Box, 4,245.

GUARANTEED.—24-INCH WET SPRUCE, 3-INCH PINE Ripped by boy 12 years old with Talpoy's l'ateat Self-feeding Hand Saw Mill, with Scroll Saw Combination. All kinds fancy sawing can be done, up to 6 inches thick. Send for Circular. 11 W.M. H. HOAG, No. 222 Pearl Street, New York.

YOUNG MAN WANTS A PLACE IN A GOOD Engine Shop; he wishes to learn the trade. Address Box 73, Fembroke, N. Y.

A MONTH MADEWILH STENCIL TOOLS.
Don't fail to send for a free catalogue, containing full particulars. Address S. M. SPENCER, Battleboro, Vt. 118*

WANTED-BY A PRACTICAL MECHANIC, AGE 27, a situation to renew an ypart of portable engines, and put in V a situation to renew any part of portable engines, and put i new fire boxes; has filled a similar situation three years. Fir-class reterences. A security given if required. Address 1* W. WALTER, Manchester Hotei, Washington st., N. Y.

W. BACON, No. 84 JOHN STREET, NEW YORK Agent for Kenoall's Self-adjusting Piston Packing.

MR. E. KENDALL—Dear Sir:—The patent packing you put in my engine some two months since works to my entire satisfaction. Lately I have driven my engine to the full extent of its capacity, with steam at over 100 lbs, pressure, and it does not leak steam, as is common with other kinds of packing that I have used with an experience of 12 years of running large engines in saw and flouring mills. Yourstruly,

TEAM AND WATER GAGES, SCOTCH GLASS
Tubes, Counters, Indicators, and Pyrometers, for sale.
E. BROWN, 311 Wainut street, Philadelphia, Pa.

MODELS, PATTERNS, EXPERIMENTAL AND other Machinery, Models for the Patent Office, built to order by HOLSKE & KNELLAND, Nos. 5:8, 530, and 532 Water street, near Jefferson. Refer to Scientific American Office.

FOR THE CELEBRATED LAW'S PATENT SHINGLE and Heading Machine, and the best Shingle, Heading, and we Machinery, address TREVOR & CO., Lockport, N. Y. 11 8*

TURNING TOOLS.—CUTTERS OF ANY KIND, FOR fancy incrning, made to order. A substitute for the shde rest, that will do most of the work done by it, at \$10, All work warranted of the best quality, and reasonable in price. I will norchase tools not in my line for parties at a distance at the lowest market rates; commission 10 per cent.

EGBERT P. WATSON,
BOX 773, New York.

ITUATION WANTED — BY AN EXPERIENCED Mechanic, as a Mechanical Superintendent or Head Draftsman.

THE ILLUSTRATED PHRENOLOGICAL JOURNAL FOR MARCH-Contains Cornelius Vanderbilt, Hon. Ezra Cornell, Prof. Mapes, Frederica Bremer, Lavater, Las Casas, Sir John Franklin, Capt. Cook, Revs. John Wesley and Jonathan Edwards: Talent and Genius; Extraordinary Prediction; Ghosts; Origin of Coal; Varieties of Sheep; Iron, its uses; Putting on a Bad Face; Tribulation Trepid and Mr. Hopeful; The Jew; Love and Lovers, the