NEW INVENTIONS.

The following are some of the most prominent of the patents issued this week, with the names of the patentees :--

APPLYING TIRES TO LOCOMOTIVE WHEELS.-EDWARD MELLON Stranton, Pa.-This invention has for its object the securing of tires on the wheels of locomotives without the aid of bol's and so that the tire, in case of becoming loose, cannot casually slip off from the wheel.

CARVING TABLE -ROYAL E. DEANE, New York City. vention relates to an improvement in carving tables such as are used in restaurants, hotels, etc., for holding meats while being carved and keeping them in a warm state.

WASHING MACHINE.-J. L. WEAVER, Davis, Ill.-This invention is designed to furnish an improved washing machine by the use of which the time, labor, and expense expended in washing clothes may all be diminished.

LANTERN.-A.M. DUBURN, Chicago, Ill.-This invention con ists in a novel maner of constructing the lattern, whereby all its parts are rendered accessible for repairs and cleansing purposes, the wick rendered capable of being adjusted higher or lower without detaching the lamp from the lantern, and the lamp supplied with a burner which does not require a draft chimney.

IRON RAILROAD CARS.-S. MERRICK, New Brighton, Pa -This invention relates to the manner of connecting together and securing the panels to the car, whereby the constructing of iron cars is greatly facilitated and the panels rendered capable of being readafforded for the finishing of the interior of the car.

ROOFING CEMENT.-GEORGE STEAD, Brooklyn, N. Y.-This invention has for its object to furnish a roofing cement, or paint for pointing and painting metallic roofs, and other out-door surfaces, that will not crack or peel off ; that will yield to the expansion and contraction of the surfaces to which it may be applied ; and which will be more durable, tougher, and more elastic than ordinary paints or cements.

LOCK FOR TRUNKS, ETC.-JOHN GEO. KAST, New York City. This invention relates to a lock for trunks, boxes, valises, and other similar articles, and it consists in a sliding bolt provided with two or more hooks which, by the action of a spring, are caused to catch in corresponding sockets or staples secured to the lid or cover of the trnnk, etc. The end of the sliding bolt is provided with a screw fastening so that a key can be readily con nected there with, and by pulling on the key the hooks of the bolt can be disengaged from their sockets. A spring stop which rises automatically when the lid or cover is opened retains the bolt in such a position that the cover or lid can be closed with ease and convenience.

SEED-PLANTING ATTACHMENT FOR HOES .- NELSON SAFFORD Pleasant Valley, Vt.—This invention relates to a seed-planting attachment for hoes, whereby seed may be dropped and covered with the hoe at one operation.

DITCHING MACHINE.-EDWARD HEATH, Fowlerville, N. Y.-This invention consists in so constructing a machine that the ground may be ditched rapidly and to any desired depth for laying tile for the purpose of draining land; and more particularly for the peeu lar and novel manner by which is produced a longitudinal motion to the excavator or digger and a lateral motion to the scraper through the same cross head. It also consists in the novel manner by which the machine is propelled forward by means of the same cross head.

CULTIVATOR -JACOB K. REINER, Line Lexington invention consists in the novel means employed for adjusting the beams in adjustable cultivators whereby said adjustment may be with facility and the beams firmly retained in position as adjusted.

PRESSING HATS .- ISAAC T. GREEN, Milford, Conn. -This inven tion consists in the application of steam to the hat while the same isin place between the presser and the die in such a manner that by the action of the steam the material from which the hat is made is kept soft and pliable and said hat assumes the correct shape.

FURNACE AND BOILER.-HENRY MCCLURE AND JAMES ELLIS Terre Haute, Ind .- This invention is designed to furnish an im proved furnace and boilers so constructed and arranged that the heat shall strike the boilers, except the first one, above any de posit of sediment that may be in them : that the draft may be adjusted to all changes of weather; and that it may be a complete smoke consumer.

ROTARY SPADING MACHINE.-E. J. FRAZER, Erie, Pa. -The distinguishing principles of construction and operation of this machine consist in the arrangement for shifting the traction m the driving wheels to the rotary spade or digger, by which all the weight of the machine and driver, and any accessory load-ing which may be required, rests upon it and pushes the spades deep into the ground, the only operative force being that derived from the team ; and, vice versa, shifting the traction from the rotary spades to the wheels, by which the machine travels with the spades elevated clear of the surface of the ground.

MACHINE FOR PRESSING BONNETS.-GEORGE M. RICHARDSON Barre, Mass.-The object of this invention is to facilitate the operation of pressing bonnets and hoods, and consists in two hollow iron dies or molds, which are heated by steam, and by of a screw are clamped around a block form, on which the bonnet to be pressed is placed.

PRIVY .- D. T. FORNEY, Wytheville, Va.- The object of this in vention is to remedy the many defects of the system now pursued and adopted for the construction of privies, water clos ets, and o her similar places

FASTENING FOR NECKTIE, ETC.-HARRY M. HEINEMAN, Williamsburgh, N. Y.-This invention consists of a fastening or clasp of such a nature as to be susceptible of being readily fastened on or detached from the collar, to which clasp the neok tie, eto., is attached by sewing or otherwise.

HOLLOW AUGER.-JAMES LEFEBER, Cambridge City, Ind.the hollow auger embraced in this invention simplicity, strength, durability, and cheapness are secured.

FASTENING FOR WINDOW BLINDS, ETC.-HEZEKIAH MONROE, Fall River, Mass.-This invention consists of two plates or pieces constructed or arranged together as to be self-operating, when brought into connection with the fixed staples with which they are to interlock.

SPICE BOX.-WALLACE A. MILES, Meriden, Conn.-The object of this improvement in spice boxes is to prevent the loss of the aroma of their contents. This is accomplished by making them tight and close when not in actual use, their tops being so ar-ranged as to be easily and readily opened to allow the spice to be shaken out after the manner of sprinkling or dredging powdered substances out of a box.

SETTING STONES IN JEWELRY.—FRANCIS STEFANI, New York City.-This invention relates to the setting of stones in jewelry. whereby the stone is held in a reliable manner, but can be easily removed at any time for changing the stone if desired.

CORD AND LINE REEL.-H. W. CHAMBERLIN, JERS City, N.J.-The reel embraced in this invention consists of a flat piece of wood, molded with deep and capacious notches in its ends, for receiving the coil as it is wound upon it, and having handles so attached that the reel can be operated with great facility and rapidity.

GLOBE VALVE .- C. STIERLE and JOHN C. BAER, Cincinnati Ohio.-This invention consists in certain improvements in globe valves, whereby the grinding of the valve seat can be evenly accurately accomplished. 7 and

CULTIVATOR.-EDWIN CHILDREN, Lancaster, Wis.-This invention consists in a novel arrangement of the plow beams and the draft pole, whereby the plows may be moved or adjusted lateral-ly with the greatest facility. The invention also consists in a novel manner of attaching the plow standards to the beams, whereby the plows may be adjusted more or less obliquely to throw the earth either toward or from the plants, as may desired adjusted in a plane at right angles with the machine to cast the earth at both sides of the furrow when required.

STAMP MOISTENER-H. A. HOYT, Mott Haven, N. Y.-This invention has for its object to furnish an improved apparatus for noistening stamps preparatory to attaching them to their places

COALING ENGINE.-EDWIN R. KERR. Kewanee, Ill.-This invention relates to a new and improved means for supplying locom tiveengines with coal, and it consists inhaving one or more chutes in a shed or building, which are provided with doors arranged in will form a continuation of the chutes, and the inner doors so ar ranged as to admit of being readily opened to allow the coal to be discharged, the outer doors being counterpoised so as to work, open and close, easily without any slamming, and consequently without the liability of being broken or tornfrom their hinges.

PRESSING AND FINISHING HATS.-WM. WALSH, WM. WALSH, JR., and M. J. WALSH, Brooklyn, N. Y.-This invention consists in improved devices and machinery for finishing and pressing hats, whereby the operation is much facilitated.

FOLDING TABLE.-G. W. NELLIS, Richmondville, N. Y. The bject of this invention is to construct a table in such a manner that it may, when not desired for use, be folded into a small com place without monopolizing much room.

BOOKBINDER'S PAPER CUTTER.-MICHAEL RIEHL, Philadelphia .—The nature of this invention is to provide a binders, by which the paper may be pressed and cut simultane. ously, and is so constructed that the instant the knife ceases to cut or has passed through, the press is slacked and the book is released at once from the press.

PAINT COMPOSITION .- G. W. MOORE, New York City vention relates to certain improvements in that class of paints in which antimony or a compound of antimony forms lone of the chief ingredients.

ROOFING.-JOHN ROUSE, Port Gibson, N. Y.-This invention relates to a tile produced of lime and sand mortar, in suitable molds, which are lined with cloth or paper to prevent the mortar from adhering to the mold, so that the tiles when dried can be readily removed from the mold. Said tiles are made with beveled edges, whereby their removal from the molds is facilitated, and a joint is obtained which can readily be filled with mortar. The tiles thus prepared are saturated with coal tar, asphaltum, or any other substance which fills the pores of the mortar and prevents it from absorbing any water when placed in a horizontal position, and consequently renders the tiles proof against frost

SAFETY LAMP .--CARL RIEDEL, Guttenberg, N. J. -This inven tion consists of a lamp, the oil reservoir of which is hermetically sealed and filled with some absorbent material, such as raw cot ton, sponge, or other substance, with a layer of pounded coal or other bad conductor of heat between the top of the oil reservoir and the absorbent material, in combination with a cylinder of wire gauze which surrounds the wick in the interior of the lamp and with two hollow curved handles, in such amanner that with the proper treatment light hydrocarbonliquids such as naphtha, or benzine from petroleum, can be burned with perfect safety.

STEAM BOILER.-AUG. H. TAIT and Jos. W. AVIS, New York City .- This invention consists in the arrangement of angle and T rings, welded and turned in the lathe to the proper angle for caulking, in combination with a series of cylinders made of boiler plate and riveted to the angle and T-rings, so that by said rings the boiler is strengthened and adapted for high pressures : also, in the arrangement of longitudinal bolts or stays, in combination with the angle and T-rings in such a manner that the principal strain exerted by the steam on the boiler is thrown on the rings and stays, and a cheap, durable, economical and strong boiler is obtained.

LOOM.-BENJAMIN OLDFIELD, Newark, N. J.-This invention relates to improvements in the batten, the shuttles and the sleysor reeds and it consists first in the arrangement of two or n shuttles placed in an upright position, one behind the oth in the same place, in such a manner that more than the or. dinary number of shuttles can be passed through one opening in the ways, and different colors can be introduced in the work without imparting to the batter or any part thereof, a rising and falling motion. Second, in cutting away the body part of the shuttle and substituting therefor a metal bow, in such a manner that the hight of i he shuttle and the cost of its manufacture is reduced, and the quill in the shuttle can be readily reached and supplied with thread.

SURGICAL SPLINT .- RICHARD J. P. GOODWIN, Manchester, N. h.-This splint, which is applicable for fractures of arms or legs, and also for curing deformities. The invention consists in the arrangement of an adjustable band, applicable above and below the joint, in combination with suitable guides and fastenings, in anner that the limb can be stretched during the ope anch tion of applying the splint, and after the splint has been secured, the movable band can be readily adjusted over the fracture.

DRESS ELEVATOR.-CHRISTIAN GRUN, New York City.-This invention relates to an improvement in that class of dress ele-vators which are composed of a V-shaped bed plate with two spring jaws, which are so arranged that a portion of the dress can be clamped between each jaw and the bed plate, and this and the spring to the V-shaped bed plate. imp

GRUBBING MACHINE .- CORTLAND BALL and J. W. HOUGHTELIN, Detroit, Mich.-Patented August 15, 1866.-This invention relates to a new and improved device for eradicating or drawing out stumps, roots, etc., etc., and it consists in having two ratchets and a drum placed on an axle provided with two wheels and having upon it a frame to which pawls are pivoted to engage with the ratchets. the above parts being used in connection with a chain or clamp, whereby a very convenient device is obtained for eradicating or drawing outmedium-sized roots, stumps, etc., and one which may be drawn from place to place and manipulated with the greatest facility.

Inventions Patented in England by Americans.

[Condensed from the "Journal of the Commissioners of Patents."]

PROVISIONAL PROTECTION FOR SIX MONTHS. 1996.—CONSTRUCTION OF ORDNANCE.—John Ericsson, New York ity. August 2, 1866.

1998.-CARDING ENGINE.-Ed ward A. Cutler, Providence, R. 1., and Charles Bliven. Putnam. Com. August 3, 1866. 2000.-CHURN.-Leander Langdon, Northampton, Mass. August 3 1866.

3 1866. 2024.—MACHINERY FOR STAMPING, CRUSHING, AND PULVERIZ-ING ORES AND OTHER HARD SUBSTANCES, PARTS OF WHICH IM-PROVEMENTS ARE APPLICABLE TO FOWER HAMMERS.—William Wright, New York City. August 3, 1866. 2026.—MANUFACTURE OF CARBONATES AND BI-OARBONATES OF SODA AND FOTASH, THE SOLUBLE AND INSOLUBLE SLICIATES OF SODA AND POTASH, AND MURIATIC ACID, FROM CHLORIDES OF SODA AND POTASH.—HAYME M. Baker, Joseph H. POOL, and William R. Stace, Rochester, N. Y. August 5, 1866.

2028.—CONSTRUCTION OF PORTABLE LANTERNS.—George Barnes Windle, 56 Malden Lane, New York Uir, but now residing at 53 Gracechurch street, in the City of London. August 5, 1899. 2034.—PRESERVING WOOD.—Louis Robbins, New York City. August 6, 1866.

agus 2,036.-Issan A 2.032-URICES FOR TURNING LATHES AND OTHER TOOLS-mac Smith and William Harvey Haight, both of New York City. ugust 7, 1866.

2.052.-IMPROVED TELEGRAPHIC CABLE.-Alexander De Morat, Philadelohia, Pa. August 7, 1866. 2.056

1840-philar 14: Hagdett, 1960. 1956. – Machinery For Manufacturing Envelopes, Partly 19 Applicable To Other Purposes. – Edwin Allen and John rner, Norwich, Conn. August 9, 1866. A.

2,058.-Explosive SHELL.-Lewis Williams, Peekskill, N.Y., at present residing at Halifax, county of York, England. August 10, 1866.

2,063. -STAMPS FOR PRODUCING IMPRESSIONS, WHICH ARE ALSO APPLICABLE TO CYLINDER PRINTING.-Jabez Elverson, Newark, N.J. Augusti 11, 1866. 2,067.-APPARATUS FOR MANUFACTURING ILLUMINATING GAS AND PRODUCING BONE BLACK AND OTHER VALUABLE RESIDUUM. -Jo hn Ensley, New York City. August 11, 1866.

2,073.—BERECH-LOADING FIRE-ARM.—Alexander Bergen, Brook-yn, N. Y. August 13, 1866. 2082-MODE OF FASTENING BOILER TUBES.-James Bewden, Horace Theall, and William H. Cobanks, New York City. Aug. 14, 1866.

14, 1866. 2,084.—WATERPROOFING TEXTILE FABRICS, AND PRESERV-ING LEATHER, CORK, WOOD, AND VULCANIZED INDIATCUBER, ALSO TERRA COTTA, STUCCO, BRICK, AND LIKE SUBSTANCES.— Charles Baxter, Boston, Mass., now residing at Nelson square, Blackfriars Road, in the county of Surrey, England. August 14, 1866.

2,092.—APPARATUS FOR CUTTING, GRINDING, AND FINISHING MARBLE AND OTHER SIMILAR MATERIALS.—James W. Maloy, Boston, Mass. Aukusti6, 1896.

2,104.—RUDDER FOR SHIPS AND OTHER WATER CRAFT.—Wil-liam L. Wetmore and Nicholas D. Le Pelley, both of Cleveland, Ohio. August 16, 1866.

2,117.-CONSTRUCTION OF BALE FASTENING.-Hazard Knowles, New York City, and Henry Anwyl Jones, Brooklyn, N. Y. Aug. 17, 1866. 2.118

3.—STUFFING FOR MATTRESSES, CHAIR SEATS, AND OTHER PURPOSES.—Almanzor Alden, Matteawan, N.Y. August LIKE

2,119.-PUDDLING FURNACES.-Christopher de G. Baker, Jacob Harlan, and Joseph Bell, all of Wheeling, W. Va. August 17, 1866 2.144. - MACHINERY FOR MAKING MAILS. - Excelsiof Nail Com pany (Incorporated), Providence, R. I. August 21, 1866. 2.154. - CONSTRUCTION OF SELF-RAKING REAPER. - James Marsh, Lowisburg, Pa. August 22, 1866.

2,159.-BREECH-LOADING AND OTHER FIRE-ARM AND BAYONET FOR THE SAME.-Charles Howard, New York City. August 23, 1866.

2,171.-SUBMARINE RAKE FOR GATHERING OYSTERS OR OTHER ARTICLES.-Job Johnson, Brooklyn, N. Y. August 23, 1866. 2,250.-MACHINE FOR MAKING EYELETS.-Thomas Garrick, Providence, R. I. September 4, 1866.

PATENT CLAIMS .- Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing si as a fee for copying. We can also furnish a sketch of any pat-ented machine to accompany the claim, at a reasonable additional cost. Address MUNN & CO., Patent Sollcitors, No. 37 Park Row, New York.

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

Improved Bolt Cutter.

No tool used in a machine shop is more necessary or oftener required than a bolt cutter. Some are complicated, and yet poorly perform the work, "raising" and weakening the thread, and not being easy of adjustment. The simpler the parts and the more absolute and direct their action, the more efficient and valuable any machine; and the bolt cutter, above all others, should possess these essential requisites. The inventor of the machine here represented, claims to have perfected a tool that is manner.

simpler, more readily adjusted, and capable of doing work quicker and better than most implements designed for the purpose. With it, he says, bolts can be cut close to the head and of any length desired, limited only by the size of the shop. But little explanation is necessary to understand its operation.

The cross head, A, sliding on the guide rods, B, is fitted to receive chucks for holding a bolt head, or can be furnished with a vise, the jaws moved by right and left hand screws. The lever, C, is attached to asliding fulcrum, D, which moves on the rod, E, and can be used, if necessary, to start the cross head at the commencement of a cut. The dies are inserted in the jaws, F, of the revolving head, G, which is secured to a hollow spindle, sustaining the cone, H. By means of inclined slides passing through the head, and attached to the clutch and lever, I, the jaws can be opened from the center, or closed to the size of the screw required. When closed they are held securely in place. The dies can be adjusted to different sizes of bolts by a screw (not shown),

which acts against the back end of the die. The recess, J, in the bed is for the reception of the oil and chips

It is claimed that this bolt cutter is the cheapest in the market, that its work is equal to that of the lathe, and that the dies can be changed without moving a screw.

Patented by J. F. Rodgers, South Bend, Ind., whom address for rights and additional particulars.

Sliding Parallel Vise

The object of this invention is to dispense with the laborious operation of turning the screw out tion of their manufacture may not be uninteresting.

and in to suit different articles of work, and changing the pin at the bottom of the vise jaw, which all mechanics will admit is a great loss of time as well as an annovance, whereas in the illustration here shown, the movable jaw is adjusted instantaneously from one size to another, and the face of the jaw stands parallel with the bench, therefore it will gripe an article with greater firmness than is possible in the common vise.

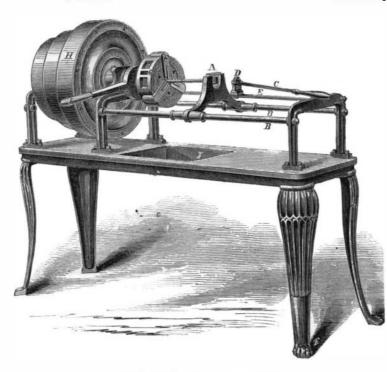
The improvement consists of a ratchet, A, secured to the nut, B, and partially embracing the front of the nut. C is a catch, secured to the rear of the bench leg to engage the teeth of the ratchet. D is the movable jaw of the vise, E the screw, and and F a brace, to keep D in a vertical position and insure its parallel movement. Where the screw passes through the bench the aperture is elongated to allow of the raising of the ratchet out of the catch so that the jaw can be drawn out or pushed in at pleasure. A tenon on the upper side of the nut, B, works in a channel in the box, G, to guide the nut.

Its operation can be readily seen. The improvement can be attached to any ordinary bench screw at a small cost.

Patented Aug. 14, 1866, by O. V. Flora. All communications should be addressed to Flora, Moore, and Rogers, Box 55, Madison, Ind.

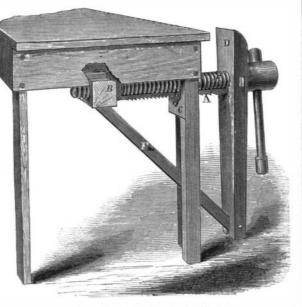
THE MANUFACTURE OF CARTRIDGES.

The cartridge for fire-arms for the use of soldiers is a subject which has employed the inventive faculty largely within a few years. The common fowling piece has been loaded for a great many years by means of open powder and shot, the powder being poured into the hand, measured either by a tubular gage on the flask, or estimated by the eye; the amount of shot being calculated in the same



RODGERS'S BOLT CUTTER.

military purposes, the powder alone being placed in the paper cylinder, and, when used, the twisted end being bitten off by the soldier and its contents emptied into the gun. (Vide Scott's Tactics.) Afterward the paper cartridge, with ball secured at the top, was used, paper and all being introduced into the gun. Then skins, or the prepared intestines of animals, were employed as a receptacle for the powder, the projectile being placed at the open end and the skin secured about its base by a string. These were very neat cartridges. A brief descrip-



FLORA'S PARALLEL VISE.

The skins, or animal intestines, were brought from Europe in a dried and salted state. They were macerated in water until they became perfectly pliable and very elastic. The operatives were girls, each one of whom sat at a table, having at her side a tub of the intestines, looking like linen or cotton strings. Before her was a board bearing a number of upright pegs, in form like an elongated the human lungs in two hours.

truncated cone, or, in other words, resembling a human finger. Over these, sections of the skin, cut off by a pair of scissors, were stretched, and when all the pegs were covered the board was placed in the sun to dry. When dry these pockets were filled with powder, the quantity graduated by weight, and the bullet was tied at the top. The skin is so thin and yet so tough, that, although the grains of powder are easily distinguishable through it, it will bear a large amount of rough handling. These were far superior to any paper cartridges.

But the metallic cartridges appear to be gradually displacing these other forms. They are made of sheet copper. The copper is cut by a punch into a circular disk, and at the same time, by means of a punch and die, is formed into a cup shape, the punch forcing the center of the copper disk down through a die. This operation is repeated, by means of constantly diminishing punches and dies, until the requisite diameter 'and length are obtained; annealing and washing being occasionally resorted to for softening the metal and removing the oxi dized scales.

When brought to the proper size and shape, the shells are placed upon a revolving spindle and cut to the required length, the upper edges being, of course, irregular in outline when the shell comes from the last die. The shell must then receive a head, or rather the head or bottom, which is now of no larger diameter than the body, must be "upset" to make a receptacle for the fulminating compound, which is distributed around its circumference. To secure this result. the shell is slipped on a spindle, having a shoulder at the proper distance,

Then the paper cartridge was introduced for and a "header" strikes a blow against the bottom which bulges out equally all around, forming a narrow rim at the base of the shell, of larger diameter than the body of the shell, itself, and hollow.

The fulminate, precisely like the explosive preparation used in percussion caps, is spread over copper plates, perforated with holes about threesixteenths of an inch diameter. The material lodges in the perforations, which, by a suitable device, are brought over the shells so that the fulminate may be dropped into them. As this substance is to be confined to the rim of the head, it must be distributed. For this purpose each shell is held under a vertical spindle which is made to revolve very rapidly. The end of this spindle is cut into radial teeth, similar to the congeries of radii on the face of a millstone, by which the fulminate is forced centrifugally into the rim of the shell head. This is the only process in the manufacture of these cartridges attended with danger, as the compound is of a highly explosive character. The shell is then filled with powder, the base of the projectile inserted, and the copper crimped around its base.

These cartridges stand the test of rough handling, dampness, climate, and time, better than any others yet invented. They are fast superseding all other cartridges.

NEW NORTHERN EUROPEAN STEAMSHIP LINE .-The American-Scandinavian-Russian Emigrant Company has completed three new steamships which are to connect New York with Southampton, England; Christiania, Norway; Guthenberg, Sweden, and Copenhagen, Denmark. They will connect with other vessels running between Copenhagen and Stettin, Dantzic and Königsberg in Prussia, and Riga and St. Petersburg in Russia.

TUNING PIANOS.—A correspondent suggests that an improvement might be made for tuning pianos up to a given standard pitch, by means of some device which shall indicate automatically when the required tension has been given to each string. Here is a chance for the ingenious.

OVER five hundred cubic feet of air pass through

LONDON contains 19,000 miles of gas pipes.