# RECENTLY PATENTED INVENTIONS. Pertaining to Apparel.

SAFETY-PIN .- W. STRAYER, Axtell, Kan This invention relates to certain improvements in safety pins adapted for general use but more particularly adapted for use in securing any suitable attachment to the person. It may be made in any convenient size or shape. It cannot be opened by pressure alone, nor become accidentally unfastened.

### **Electrical Devices**.

ELECTRIC HEATER .-- J. S. REYNOLDS, Santa Barbara, Cal. In the present patent the invention has reference to electric heaters, the inventor's more particular object being to improve the general construction of the heater and more particularly to provide an improved manner for mounting the heating wire.

ELECTRIC CONTROLLER. - R. VAN R. SILL, Newark, N. J. The object of the invention is to provide a controller, more especially designed for use on electric street cars and other electric motor vehicles, and arranged to insure long life to the contact members and to provide an exceedingly strong contact between the said members for the proper transmission of electricity.

ELECTRICAL CONTACT-JOINT. - R. H. miniature lamps employed in surgery, dentistry, watch-making, and various other professions and avocations in which it is necessary to manipulate the lamp by hand, or to secure it upon the operator's head, as the case may be.

harvester is driven up the row with one horse between the unharvested corn and the row for snapping off the ears and knocking them into a conveyer, stripped stalks passing between the rollers. The latter yield for the Liberty, Ill. Especially that type of mold in passage of larger stalks or slight obstructions. TRIBUTER.-C. E. LITTLEFIELD, Jesup, Ga.  $\Lambda$  purpose of the invention is to provide a

planting seed at desired distances apart, and which will be simple and light of draft, and whereby also two kinds of seed can be planted at the same time from the same machine at desired intervals apart.

HAWKS, Curtiss, Wis. This machine is adapted changeable leaves are firmly held together in to remove stones from farm land as it is pulled a temporary mechanical binder. The object is along, and load them into an auxiliary cart to make the ledger self indexing and capable arranged to crease a piece of fabric on all coupled to the rear of the machine, and it of indefinite extension and to facilitate the sides, to form outer sewing flaps and to fold can be uncoupled when loaded and driven to reference to the various accounts, thus saving the same over onto the fabric-body. the desired dumping ground, thereby dispensing much valuable time. with the labor entailed in such machines as dump stones in piles thereafter to be re-loaded before being carted away.

### Of General Interest.

TONSILLOTOME .- E. STRAW, Marshfield, Ore. The object of the inventor is to within the opening of the ventilator frame, like. provide cutting blades to remove any desired these being slightly spaced apart and having amount of tissue at a single cut, to provide means for adjusting the blades at any angle relatively to the handles operating the blades, and also means for detaching one blade from the other.

STAR-FINDER.-J. T. ROGERS, New York, N. Y., and W. H. RIDINGS, Milwaukee, Wis. This finder is more especially designed for the use of mariners and others, and arranged to enable a person to tell at a glance which stars are most favorably located at a given time for making observations, without requiring tedious calculations; to give the shortest formula for working out longitude and latitude by the simultaneous altitude of two different stars, and to find the deviation of the compass by a former II S patent granted to Mr McCor. the bearing of stars, planets, or moon.

CLOSURE .- F. H. PALMER, New York, N. Y. HAMMER.-S. S. STUHAG, New York, N. Y. and I. R. CONCOFF, St. Johns, Orc. The ob-The object of the improvement is to provide ject here is to provide an elevator arranged The aim of the improvement is to produce a an internal closure for the necks of bottles, hammer having means for holding the nail so to insure full utilization of the power applied as to start it in the wood without necessi- by reducing the friction of the surrounding jars and other packages, and arranged to hermetically close and seal the package in a tating that the nail be held in the fingers parts to minimum, and by causing the piston very simple manner and with economical when the first blows are struck. It is es-; in the hydraulic cylinder to exert at all times then the first blows are struck. It is to be a straight-line pull on the hexpole connection a addresses of houses manufactures the same. WRENCH.—G. H. TATGE, Randolph, Neb. The object in this instance is to provide a greech more especially designed for screwing the house of the shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum, and shaft to exert a straight drum to exert a straight drum to the hoisting drum, and shaft to exert a straight-line pull on the hoisting drum to exert a straight dru means. Means enable the prying of the closure pecially useful in facilitating the application a straight-line pull on the flexible connection out of the bottle when desired. of nails in inaccessible places such as a corner. employed for turning the hoisting drum, and AERIAL VESSEL .-- L. D. MERRICK, New York, N. Y. One of the purposes of the in-The object in this instance is to provide a vention is to combine in one vessel the aerowrench more especially designed for screwing plane and balloon systems in such manner that up or unscrewing the nuts on the teeth of the two will co-operate and be under the com-Canada. The patent covers features designed threshing machine cylinders. By using a separate handle for turning the shaft the Minerals sent for examination should be distinctly marked or labeled. plete control of the operator, and so that the to improve air ships and make them more conframe of the vessel may be made of exceedwrench can be conveniently manipulated in trollable. Improvements comprise special aringly light material, timber for example, and (10574) T. W. A. asks: 1. A railroad rangements of horizontal and vertical proinaccessible places in which only a partial yet be safe and strong and capable of all the pellers to be employed; a series of sheets of train going at a rate of over 60 miles per hour turning of the shaft at a time is permissible necessary elasticity. canvas or the like are mounted on rollers so rounds a sharp curve. Will the train if it until the position of the handle is changed in COMBINED EASEL AND PLATE-HOLDER. as to be wound and unwound. These to be should leave the track be likely to fall outthe eye. -S. MCMICHAEL, Newark, N. J. An object in utilized as steering sails and a certain adjustward, or does the raising of the outside rail this case is to provide a device which can be ment of them gives the ship the nature of a overcome this tendency and make it likely to Heating and Lighting. OIL-RESERVOIR FOR LAMPS. - C. T. flatable bags are arranged to be rolled up. track were level, the train would fall outward, quickly, conveniently and economically secured or removably applied to any object capable of WHIFTLE, Glens Falls, N. Y. The invention is When unwound and inflated they serve to in- now if the outside rail is raised, will it fall being supported by an easel, or which is to be suspended from a support, and furthermore to especially adapted for use in connection with crease buoyancy, either for aerial navigation inward? A. A railway train rounding a sharp

so construct the device that it may be readily adapted to either of such uses without dismemberment.

The outward formation of the ordinary pro\_ to which it is attached is overturned, thereby Texas. The object of the invention is to projectile, but with arms forming part of the peri- preventing ignition or explosion. phery of the projectile, designed to fly outward due to the action of an attached line as the City, N. J. In the present patent the invenprojectile is shot and engage in the earth or tion has reference to gas burners, and the thereby forming an effective anchoring means. of means for thoroughly mixing gas and atthawing-points, such as are used in placer the gas. mining for gold. These points are used in BASE FOR STOVES OR RANGES.-M. F. frozen earth to a great extent, and are pro-ALLEN, Nashville, Tenn. The present invenvided with means for conducting steam to the tion provides a base for sheet metal stoves forward end or tip of the point, which effect a thawing of the ground as the point is driven and durability of the body of the stove or in. The object is to produce a point having means for attaching the hose to the body. TABLE.-H. H. LEVY, New York, N. Y. This table is particularly for use in manicuring operations or for the use of chiropodists, the Letters Patent of the U. S. formerly the object of the invention being to provide a granted to Mr. Allen. table, on the side opposite to the operator, with a rocking rest for the arm or leg of a person being operated upon, thus not only relieving the person from tiresome annoyance, cago, Ill. In brief the invention embodies a

Mo. The film is for use in a camera having film or its web, which may be brought into the vane from the interior of the car.

New York, N. Y. An improved plug is adapted sound the key engaged by the striker corre being harvested, and the others on the outside to be secured within the mouth of a bottle, sponding to the magnet. When, however, sucof the row being harvested, thus bringing whereby the latter is prevented from being stalks in the row into position to be engaged refilled. The plug is unremovable and its of the row being narvester, thus bringing whereby the latter is prevented from being the row into position to be engaged by conveyer chains. These pass the stalks is constructed that liquid may opposite plate, playing another key. It is ing the bolt and provided with an enlarged backwardly toward the vertical rollers at the trailing for liquid to be forced into the switched plates in a way corresponding to the rear which are separated to allow the stalk to but impossible for liquid to be forced into the switched plates in a way corresponding to the pass but not the corn thereon. Means provide bottle. Insertion of wire or other tool is also placing of the reeds in a mouth organ, so that impossible.

PORTABLE MOLD .- W. L. HART, West the player. which the side walls are removed when the Mont. The object of the present invention is SEED-PLANTER AND FERTILIZER-DIS-RIBUTER.—C. E. LITTLEFIELD, Jesup, Ga. improved by the invention. The side walls of catching small animals, such as mice, rats, the mold may be removed by simply tipping rabbits, etc., and successively in large numused for continuous sowing, drilling, or for structure to a height above the molded ma- the next animal. It relates to traps, such as terial. The walls may then be employed upon a second base plate or pallet.

LOOSE-LEAF INDEXED LEDGER .-......................J. F. GLOE, Manning, Iowa. The invention is in the nature of a form of ledger known as loose STONE-PICKER.-G. L. HOLLIDAY and I. S. leaf ledgers, in which removable and inter- reference to apparatus employed in the manu- strung on the hook; to prevent fouling of the

> VENTILATOR .- J. F. Bowes, North Adams, narily removably placed in window openings

of buildings, cars, etc., and which will automatically operate to close and shut off a draft improved hand hold forming machine more of a plurality of similar segments so conof air on blowing therethrough. This is done by swinging two or more sheets of thin material boards employed for forming boxes and the one or more segments, said injured segments other openings, whereby as the sheets are This improvement relates to gearing especially blown together, the ventilator is automatically adapted for devices having a rotary beater or

## Hardware.

-W. MCCORMICK, Hillyard, Wash. Means pro-vide for expanding and beading the tubes of boilers into the tube sheet. One object of the a former U. S. patent granted to Mr. McCor- vice for carrying and driving drills.

lamps, oil stoves or the like, which are in-ANCHOR-PROJECTILE.—E. MINGUS, Marsh- thrown. The device will not permit oil to

GAS-BURNER. - B. F. JACKSON, Jersey other matter in which it becomes embedded, improvement has for its object the provision THAWING-POINT.-J. H. LAMLEY, Ta- mospheric air in the proper proportion to general principle can be applied to other and complete combustion of various kinds of presses.

> and ranges, arranged to increase the strength range, to dispense with separate base bands, for which Letters Patent were formerly and to render the manufacture of the stove or range very economical. It relates to range construction such as shown and described in

# Machines and Mechanical Devices.

FLYING-MACHINE. - W. PHILLIPS, Chi-WAPPLER, New York, N. Y. Mr. Wappler's but making it more convenient for the car, a plurality of peculiarly constructed more particular object is to produce a type of operator. KODAK-FILM.-J. B. KETCHUM, Joplin, communicating motion to and controlling the adjustment of the wings for effecting proa ground glass focusing plate across which the gressive movement in any direction, a guiding delivery of sand, that it may be manufactured film is passed. An opening is provided in the vane, and means for changing the position of by an ordinary mechanic and the use of all

position over the ground glass; in this way PIANO-PLAYER. — R. MORGAN, Ellsworth, ated. one is enabled to focus an image on the Kan. Blowing into one of the perforations the RA Of Interest to Farmers. CORN-HARVESTER.—F. D. WILSON and A. the camera. The invention prevents tearing D. WILSON, Ottumwa, Iowa. In operation the the edges of the focusing opening. Harvester is driven up to rest tearing the second tearing tearing tearing the second tearing te NON-REFILLABLE BOTTLE.-I. I. KREMER, electro-magnet connected therewith, whereby to tion is created in the perforations the yoke one familiar with a mouth organ may operate

> ANIMAL-TRAP.-J. M. KELLOGG, Bozeman, shown and described in Letters Patent of the U. S., formerly granted to Mr. Kellogg.

CREASING AND FOLDING MACHINE FOR COLLARS, CUFFS, AND THE LIKE.—II. other shell fish, as well as white fish, squids, GIGRHARDT, Hazelton, Pa. The invention has herring pips and like entrails too soft to be facture of cuffs, collars and like wearing ap- hook on the bottom of the fishing grounds, parel, and the object is to provide a machine, and to securely hold bait in place for any

HANDHOLD-FORMING MACHINE.- A. J. COLVIN, C. G. HOCKETT, and J. W. FITZPAT-Mass. This ventilator is such as those ordi- RICK, Grants Pass, Ore. In this instance the invention relates to wood working machinery, and its object is the provision of a new and especially designed for cutting hand holes in nected and secured, that in case of injury to

GEARING .-- J. SCHROEDER. Davenport, Iowa. closed, and when separated, is likewise opened. stirrer arranged within a receptacle and may be applied to devices of various characters, but it is especially designed to be used in con-TUBE EXPANDING AND BEADING TOOL. nection with washing machines of the char-were acter shown and described in Letters Patent

DRILLING DEVICE .- L. K. MOORE and G. invention is to provide means whereby the pin may be constructed of greater strength and object of the invention is to so construct the

 Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.
References to former articles or answers should give date of paper and page or number of question.
Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.
Buyers wishing to purchase any article not adver-tised in our columns will be furnished with HYDRAULIC ELEVATOR .-- R. H. BEEBE mick.

or to aid in sustaining the ship floating in tended to be removed from place to place, and water. Wheels may be provided for moving on land, and runners for ice.

> PORTABLE COTTON COMPRESS OR Texas. The object of the invention is to provide a simple, powerful and economic mechanism or device, by which the material to be pressed can be subjected to great pressure, while the operation may be rapid and conducted in a manner to most satisfactorily compress the material with uniformity. Its

### **Railways and Their Accessories.**

RAILROAD-SWITCH .-- J. M. POWELL, Stockton, Utah. A purpose of the inventor is to improve upon the construction of the switch granted to Mr. Powell, to the extent that a short switch rail is employed between adjacent rail sections of the main line and sidings, pivotally mounted to constitute a bridge rail for the break occurring at such sections of the track, and to provide switch points having concerted movement with the switch rail.

TRACK-SANDING DEVICE.- A. A. CHURCH-ILL, Portland, Ore. The invention relates more particularly to specific means whereby the sand may be delivered from the sand box to the track by the force of compressed air supplied from the brake system or other source. One object is to provide means for controlling special castings and delicate mechanism obvi-

RAIL-FASTENING .- A. W. AVERY, Cove, N. C. The invention comprises the combination with a rail and a clamp plate, of a bolt and a tie having a slot notched in its opposite walls to receive corners of the bolt shank whereby to lock the bolt when applied to secure the clamp plate. The combination with the rail, and plate and the bolt for securing of the bolt head, the rounded side of said portion being sloped to facilitate the introduction of the head.

## Pertaining to Recreation.

ATTACHMENT FOR BAIT-HOOKS, JIG-GERS, AND LIKE ANGLING DEVICES .- J. W. HAYWARD, St. Johns, Newfoundland. The dead bait, artificial bait or like bait by small fish, to allow convenient and safe use of choicest bait, such as mussels, cockles and other shell fish, as well as white fish, squids, length of time, thus requiring no hauling of lines to see if the hook is still baited or not.

# Pertaining to Vehicles.

TIRE FOR VEHICLE-WHEELS .--- 'T. F. HAMILTON, Chicago, Ill. The invention relates to improvements in vehicle wheel tires, a special object being to provide a tire formed can be readily removed and replaced with new ones.

NOTE .- Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.



HINTS TO CORRESPONDENTS.

posable conditions fall over in the inner side to go to the expense of a steam locomotive of the track. The elevation of the outer rail excavator.  $\Lambda$ . The only suggestions that we is made such as to overcome the tendency to have to offer you for excavating earth are a overturn to the outward side of the track, and steam shovel or to use hydraulic means in case the train goes round the curve as if on a level, there is a sufficient supply of water in the when it moves at the speed for which the ele vicinity. vation of the outer rail was calculated. If the velocity of the train very much exceeds the velocity for which the outer rail has been elevated, the train would leave the track on the outer side of the curve. The tracks for bicycle racing are made very steep at the turns in order to enable riders to go round the turns at full speed, and when rounding a turn the rider feels in equilibrium while leaning far in toward the center. To him he is as if riding on a level. The centrifugal force is neutralized by the elevation of the track or rail.

(10575) A. H. S. asks: How much more sunshine is there at the equator than at the north pole during the year? Where are the longest days-at the equator or the North Pole? We have a great argument over this question. A school teacher and others contend that the sun shone longer at the North Pole than at the equator, and I thought it absurd, so we decided to leave it to your good judgment. A. At the equator the sun rises and sets at six the entire year. All days are twelve hours long, and all nights of the same length. Disregarding the effects of refraction and cloudy weather, the sun is above the horizon at any place on the equator and shines just half of the possible for you to avoid trouble from foaming year. This half-year of sunshine is divided into with water containing as much organic matter equal parts of twelve hours each. At either as the analysis which you inclose shows. If pole the sun is above the horizon for six it is possible, we would advise another source months and below it for six months of the year. of supply, even though the expense of procur-There is but one day of six months' duration ing it is considerable. If this is impossible, and one night of the same length in a year. the only practical suggestions which we have You will see from this that there is the same duration of sunshine at the poles as at the quently and very generously, so as to prevent equator. The same is true for any place on the earth. Add the length of sunshine for all not force your boiler, but if necessary, increase the days in a year in our latitude, and the sun will be just a half year. The longest day is at the pole, and it is six months long.

(10576) G. T. asks: How to remove gases of combustion and decomposition from a small room. Passing the air through a liquid would not be objectionable. A. To purify air, remove the solid particles by passing the air through cotton; the moisture and ammonia and germs, by passing through sulphuric acid; the sulphur, by passing through a solution of lead acetate. Pass now through calcium chloride or soda lime to remove last traces of moisture, etc. Only pure oxygen, nitrogen, and argon remain.

(10577) F. C. F. asks: 1. What is the best method to produce lantern slides in which the high lights will be clear glass and the shadows dense enough for the lime light? I print by contact, and have used for developing hydroquinone, metol-hydroquinone, and pyro, and an acid fixing bath, yet there always is a slight veil over the high lights. A. The only mode in which lantern slides can be produced with no development in the sky and high lights juriously.  $\Lambda$  small amount of pure mineral is to have a negative which is opaque in the oil like kerosene will sometimes tend to loosen high lights. 2. Can you give a simple method a scale which is troublesome and prove bene by which an amateur could color lantern slide ficial, but grease should not be used for this transparencies? A. To color slides requires artistic sense and knowledge of the mixing and applying of color. We think that is all that is required. Much assistance can be had from pressure engines refer to marine practice. The the chapter on coloring slides in Hopkins's vacuum maintained here varies with the design "Experimental Science." This book also gives instructions for making slides as well as cameras, and an exhaustless amount of scientific experimenting. 3. Why is it that water when flowing through a funnel or into a small outlet | in inches of mercury. If the vacuum were peralways whirls, producing a depression or an fect, it would be equal to the full atmospheric opening over the outlet? Why is the whirling pressure, which varies with the weather, but always counter-clockwise? A. There is probably something in the shape of the outlet of a cury, or 14.7 pounds per square inch. A confunnel or wash basin which determines the densing engine can never have a perfect vacuum course of the liquid as it runs out. A loss of because it cannot cool the exhaust steam far equilibrium is soon seen, and the water whirls. Centrifugal force is produced, caused by the it does bring the exhaust steam, the more peropening into the pipe below. We would try to fect will be the vacuum. explain why the whirling is always counterclockwise if it were so. We have just tried a wash basin, and found the motion always clockwise when left to itself. By a motion of the hand it could be made in either direction. Probably some inequality in the orifice determines the matter.

curve at a high speed cannot under any sup- be pleased to hear from you. I do not want

(10580) T. C. G. says: Can you give me reliable rules for finding the sets of elliptical and spiral car springs? Also the length a bar should be to make a spiral car spring of a given free height? Do you know where I could buy a book dealing with car springs? A. The question of calculating elliptical and spiral car springs to give definite results is an exceedingly complicated one, and one that requires considerable experience as well as theoretical knowledge. You will find quite a complete discussion of the theoretical side of this subject in the last edition of Lanza's "Applied Mechanics," with which we can supply you for \$7.50 by mail.

(10581) A. E. K. says: The owners of one of the mills in this vicinity are having a great deal of trouble with foaming of the water in the boilers, and have made a trial of very nearly everything that has been suggested to remedy this. A sample of the water was sent to the University of Minnesota for analysis, and I inclose copy of a letter received in reply. If you can suggest anything that would be of service the favor will be greatly appreciated. A. We doubt if it will be to offer are: 1. Blow off your boiler very frethe impurities becoming concentrated. 2. Do your boiler capacity so as to be able to generate the steam that you require at a low rate of evaporation. 3. In case you have a sufficient supply of water, we would strongly advise you to introduce surface condensers only adding enough impure water to your boilers to make good the leakages. 4. In case there is not sufficient water supply to enable you to use surface condensers in the ordinary method, we would advise your building a shallow evaporation tank to cool the condensing water, so that you may use the same condensing water over and over again in your condensers. This will require only enough water to make good the evaporation. Either of the suggestions contained in No. 3 or No. 4 will give a satisfactory solution of your problem, but we doubt if anything else will.

(10582) M. F. F. asks: 1. State what effect oil or greases in a boiler may have upon the boiler itself. A. In answer to your first inquiry, we would say that greases in a boiler are almost always injurious, as they cause foaming and are apt to decompose, forming acids which affect the plates of the boiler in purpose. 2. Where low-pressure engines are used, state what vacuum is maintained? A. We infer that your questions regarding lowof the engines and the condensers from 24 to 25 inches of mercury to 27 or 28 inches. 3. What is meant by this amount of vacuum? A. The amount of vacuum is usually expressed on an average is equal to 29.9 inches of merenough. The lower the temperature to which

(10583) T. N. K. says: Will you kindly give me horse-power of a fore-and-aft compound engine 8 and 17 x 12, 200 pounds boiler pressure, 300 revolutions per minute, 25 inches vacuum? A. You do not give sufficient information in your letter to make it possible for us to exactly calcuate the horse-power of (10578) A. B. S. writes: As a long 8 and  $17 \times 12$  tandem compound engine which

# NEW BOOKS, ETC.

LE CARBONE ET SON INDUSTRIE. By Jean Escard. Paris: H. Dunod et E. Pinat, 1906. Paper; 751 pages; 129 illus-trations. Price, \$7.50.

M. Jean Escard in his new work has taken for his end as complete and wide a description as possible of the recent applications of the different forms of carbon, putting stress on those which have a particular interest or an those which have a particular interest of an especial industrial application. After a gen-eral dissertation on the properties of carbon so as to familiarize the reader with the modi-fications which will be presented to him later, and also to avoid repetitions in the following chapters, the author commences with a study of the diamond and its applications. Graphite, which is worthy of next being discussed, is dealt with at length. The author does not fear to lay great weight on the physical and chem-ical characteristics of a number of the many varieties of this substance, and to describe mineral is found. In the next chapter, the reader can gain some idea of the interest that is shown in investigating the properties of amorphous carbon, each variety having special applications of its own. The last two chap-ters, given over to bituminous coal, are par-ticularly alluring. The author gives not only a view of this mineral and of its properties of is found in France as well as in Europe and in the other parts of the world, and he has endeavored to interest the reader by adding some new considerations on the world, and he has endeavored to interest the reader by adding some new considerations on the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations of the world, and he has endeavored to interest the reader by adding some new considerations especial industrial application. After a genin the other parts of the world, and he has in the other parts of the world, and he has endeavored to interest the reader by adding some new considerations on the exhaustion of coal mines, and on the fuels of the future. M. Escard in many places evolves his own bypotheses on the formation of certain forms of carbon parallel to those which other au-thors have already set forth. The many re-searches that he has carried on in the mines, as well as his particular studies of locations, will give to the reader confidence in his as sertions. It is certain that this work, the industrial uses of carbon, will receive a great industrial uses of carbon, will receive a great



# will give to the reader connerme in mix as a categories, C. B. Galleer C. C. S. Galleer C. C. S. Galleer C. S. Service Strong Str 857,029 land Carton for nutmegs and the like, J. B. Fal-

reader and subscriber of your publications, I) you mention. The power varies with the	ie	United States were Issued	Dial rim. F. R. Cunningham	
desire to ask if there is any secret in the point of cut-off in the two cylinders, the			Display cabinet, E. A. Wilcox	
preparation of fluoroscopic screens for X- amount of compression and the throttling o	of	for the week Ending	Door check, J. A. Reed	
radiance, or if the high price is due to the the steam during the admission and exhaust	t.		Door hanger, L. A. Hoerr	
high-priced material — platino-barium-cyanide If the engine is well designed, however, the	ie 🗍		Door locks and latches, adjustable frame for.	
(or tungstate of calcium). Where can they power does not probably vary very much from	m		J. Hope. Jr	
be procured? A. There is no secret in mak- 250 horse-power when running at 300 revolu	u-   A	AND EACH BEARING THAT DATE	Door operating apparatus, P. R. Forman. 857,232 Doors and other objects, roller support for	
ing a fluorescent screen for X-ray work. Skill tions per minute with a boiler pressure of 200	ก่	Í.	movable, D. E. Hunter	
only is required to distribute the crystals with pounds and 25 inches vacuum. We would re-	e- 1	See note at end of list about copies of these patents.]	Draft device, D. W. Stapp	
perfect evenness and to attach them to the quire indicator cards from both cylinders to	:o   -		Drill hit holder. U. S. Booth	
cardboard by the adhesive employed. The give information necessary to figure exact horse	e- \Lambda		Drill press stop mechanism. S. C. Schauer, 857,207 Drill press, suspended, J. H. & J. H. Birch 857,020	
crystals must also be of uniform size, sifted power.		formic. E. Franke	Drill support adjustable A Mahahaahan 677 100	
through a sieve of rather a fine mesh. We (10584) F. A. T. asks: Is there any		Adjusting Dox, G. W. & E. E. Edwards. 857,042 Air brake. O. T. Beatty		
should buy rather than try to make one. The	1 43			
cost is in the material used. It is advised gain in power by using an Archimedes screv		automatic, H. C. Priebe	Electric cables, terminal box for, Grace &	
that barjum-platino-cyanide only will be sat beyond the power required to work an ordi	* I A	Alarm. See Burglar alarm. Amusement apparatus, A. S. Fitch	Snyder	
isfactory, since tungstate of calcium is fluores nary pump? A. There is no gain in power by	3 1 21	Anchor, w. McDride	Hallock	
cent for quite a time after it is excited. It using an Archimedes screw over the powe		Animal trap, R. E. Brown	Electric currents, regulating resistance for,	
is cheaper but poorer, and is little used now.   required for an ordinary pump. Its efficiency	У i	mann	P. Wohber	
is so low that it is not used in practice, and		Txle spindle turning machine. J. Johnson. 85(,242)	fault detector for Torebio & Varley., 857.262	
(10579) J. B. S. says: I want to ex- we therefore cannot tell you where you can		Baking pan, T. Boyd	Electric fixture, pendant, W. L. Bradshaw. 857.024 Electric heater E Thomson 857.199	
cavate earth and move the same to make a see one. The principle of its action is just the	ιο Γ	Buildovers etc. seam for D M Montgom-	Winstein heator I A Docudon 957 495	
fill of about 60,000 cubic yards. If you know same as that of the screw conveyors used for of any machinery that will do this, I would feeding coal into furnaces, to convey grain, etc	ria	ery	Electric light regulating attachment, C.	
of any machinery that will do this, I would feeding coal into furnaces, to convey grain, etc	c. [ <sup>2</sup>	Edison	Electric light switch, H. R. Coffey 857,384	