RECENTLY PATENTED INVENTIONS. Electrical Devices.

SOUND-MAGNIFIER FOR RELAYS .- M. A. HACKER, Irvine, Ky. In this patent the invention relates to that form of device which is designed to do away with the local-battery circuit and sounder as ordinarily employed on telegraph-lines and which comprehends means for amplifying the sound of the relay as operated directly on the relatively weak electrical current on the line.

Hardware.

SASH-CORD SUPPORT. — J. KREIMER, Piqua, Kan. The invention refers to means for supporting sash-cords and counterbalancing-weights for window-sashes, and its object afford a reliable support for the sash-cord, enabling it to be readily drawn to or from the sash, and weight when applied for service.

JOURNAL - BEARING FOR TRUCK WHEELS AND CASTERS.—G. P. CLARK, Windser Locks, Conn. The object of the inranged to prevent the axle from running dry in its bearings and to allow of conveniently

Machines and Mechanical Devices.

FRICTION-GEAR .- S. C. SPANGLER, Clyde, Oklahema Ter. Briefly stated, the apparatus comprises a driving-shaft having two spaced gear-disks fast thereon, the driven element or elements having gears set between the geardisks and means for moving the gears of the ments in either direction.

PRINTING BY MEANS OF ELASTIC ROLLERS •R PLATES.—E. SCH•ENING, Berlin, Germany. In this instance the invention relates to printing-machines, and more particularly to that class of machines employed for grounding wall-paper, and has for its object to produce an ornamental ground on the paper. A ground is produced on the paper having two shades of the same color at one and the same operation and by the same printingsurface. The invention utilizes the patternsurface and the color removed from the printing-surface in producing the pattern on a printing-surface to print a second web, thus producing a duplex machine.

METHOD OF PRINTING .- E. SCHOENING, Berlin, Germany. The invention consists in preventing rattling and entrance of dust. producing a pattern in the color or ink on a ATTACHMENT FOR VEHICLE STI printing-surface and transferring the pattern thus produced on the printing-surface to a In this improvement the inventor provides a sheet, web, or the like. Also it consists in clip which fastens to the free end of the subjecting the colored or inked surface of a surface to wholly or partially remove the the driver and being mounted in the clip, so color or ink from portions of the printing-surface to produce a pattern in the color zontal position, the latter being the inactive thereon, which when transferred to a sheet position, the vertical the active. The fork web will be in two shades of the same

SIGN, Defiance, Ohio. This machine is more adjustment. especially designed for cutting threads on wooden articles—such as insulator-pins, brackets, speels, bebbins, handles, barrels, etc.—and ing carriages, shewn and described in the arranged to cut any desired number of threads Letters Patent formerly granted to Mr. Fanper inch for a desired distance of the same ning. The object of the present invention is or different diameters and irrespective of the provide improvements in folding baby-carshape of the work and to produce threads exceedingly smooth, clean, and true.

N. Y. In carrying out this invention Mr. Dette for use is not liable to accidentally close or the Agave and for all the operations done with the has in view the construction of a box which will collapse. has in view the construction of a box which will; collapse. have the body portion thereof varying in thickness—that is to say, more material will be placed in the shell or body of the box at cercated at all times.

roller employs an air cushion between a comparatively solid core or roller-shell and a invented another necktie, the purpose of which fibrous jacket or cover, the cushion preferably is to provide a bow of any description and necessary. Full particulars furnished and no names of ever drive out the telegraph. The take the provided for it.

Mr. Nollenberger has opportunity for any one who can take an active part in reading? Can light be seen? If so, how? A.

It seems very unlikely that the telegraph of the company. The particulars furnished and no names of ever drive out the telegraph. The take that the telegraph of the company of the company of the company. The particular furnished and no names of ever drive out the telegraph. formed by a layer of hollow tubing wound so made that it may be worn with either face spirally around the core and presenting an presented to the front, and when both become maintain air in the cushion in order to secure peripheral surface of the roller, and this cushion may be maintained by inflating the cushion under pressure or permitting atmospheric air to circulate freely through the coils of the cusbion.

for sewing-machines that will afford means in making repairs and that shall be simple in for guiding the end of a thread into the eye construction and convenient to handle. of the sewing-needle, a further object being Note.—Copies of any of these patents will be of sewing-machines.

Of luterest to Farmers,

SEED-PLANTER .- F. W. STANLEY, McComb, Miss. In this instance the object is to provide details $\bullet f$ c $\bullet nstructi \bullet n$ $f \bullet r$ a seed-planting device which afford means for dropping a desired number of seeds properly spaced apart in hills and expose the seed selected for each hill at the moment it is being dropped, thus enabling the operator to see that a proper number is planted in εach hill as the work pro

LAND-EVENER .-- F. W. ARNOT, Platte Center, Neb. The purpose of the invention is to furnish a machine for evening the ground so constructed that the finger of front and rear bars can be adjusted to more or less forcibly touch the \mathtt{ground} at an inclination and be held in adjusted position until released and is to provide a sash-cord support that is wherein when the evener-bars are adjusted, adapted for convenient and quick application, from engagement with the ground adjustablyand that may be firmly but detachably secured mounted supporting-wheels will be brought into in the window-casement jamb, and that will position to form roller-supports for the device, field.

Railways and Their Accessories.

AUTOMATIC LOCOMOTIVE-ALARM.—C. vention is to provide a bearing for truck wheels D. King, Olympia, Wash. This mechanism and casters for hand and platform trucks used sounds an alarm upon locomotives when two in stores, banks, offices, and the like and ar- are oppositely approaching each other on the same track. A spring-geng placed in the cab, in its bearings and to allow of conveniently to the stop-pin of which is attached a cord and readily taking up the wear of the parts conveyed through the cab side and stretched to prevent rattling, thus rendering the device across the space between two horizontal bars projecting from the cab side one above the other so that when the cord contacts with an arm attached to a tower by the side of the railread-track it withdraws the step-pin and sounds the gong. The arm in the tower is held in place by pneumatic pressure created by the eppesite appreaching lecemetive.

RAILWAY-SWITCH .- J. J. HOOPER, Chillicothe, Ohio. This switch is adapted to be driven elements into engagement with either opened and closed manually, but which will of the disks, whereby to drive the driven ele-, close automatically after a train has passed some distance on the siding or will be closed automatically by a train approaching from either direction on the main line. In carrying out this improvement two locking mechanisms are employed which may be released by means connected with the main line and the siding and which are so connected as to coact.

Pertaining to Vehicles.

FIFTII - WIIEEL .- J. SOMMER, Kearney Neb. Mr. Semmer's invention relates to fifthwheels for vehicles, and his object more particularly being to produce a strong and compact wheel previded with both ball and slide bearings and having the advantages of being unable to readily come apart, of doing away with several parts ordinarily used, and also

ATTACHMENT FOR VEHICLE STEER-ING-GEAR .-- G. D. SMITH, Montclair, N. J. steering-handle and which carries a fork, this printing-surface to impressions of a pattern- fork being arranged to embrace the knee of is also made adjustable as respects the distance between its limbs, so as to fit it to any THREAD-CUTTING MACHINE.—G. A. En-; sized person within the range of the fork

FOLDING VEHICLE.—C. E. FANNING, Davenport, Iowa. This invention refers to foldriages whereby the carriage can be readily changed from a folded to an extended or set-HANGER-BOX.-M. H. Dette, New York, up position, and vice versa; and when set up

Miscellaneous.

NECKTIE .- C. Nollenberger, Leadville, tain points to add to the strength of the Col. The purpose of the invention is to so same. Also an object is to construct a box construct the tie that it can be quickly and in which the shaft may be easily hung, the readily attached to or detached from the neckportions of box being so correlated and arband, shield, or other support and reversed, ranged that the shaft may be theroughly lubricarrying the former front soiled face to the back and the rear unseiled face to the front, ROLLER FOR LAUNDRY MACHINES.— and to provide manipulating fastening devices W. E. Cumback, San Francisco, Cal. This whereby to adjustably secure the bow to the external smeeth surface for the reception of worn whereby the tie, which is in adjustablyan inclosing casing. Provision is made to connected sections, may be manipulated to bring the former intermediate faces outward, uniform elasticity throughout the length and thereby presenting a fresh front and rear surface, the tie under such adjustment being reversible, whereby to use both front and back

SEWING-AWL .- T. O'SHAUGHNESSY. San . Jose, Cal. This invention relates to improve- ${\tt NMEDLE-THREADING\ ATTACHMENT\ FOR\ ments\ in\ awls\ designed\ particularly\ for\ use}$ SEWING-MACHINES. - L. BERNARD, New in repairing leather goods—such as harness, York, N. Y. In this patent the invention has shoes, gloves, etc.—an object being to provide for its object the provision of an attachment a sewing-awl adapted to be operated manually

to adapt the imprevement for a secured confurnished by Munn & Co. for ten cents each. nection with the presser-foot on different kinds | Please state the name of the patentee, title of the invention, and date of this paper.

Business and Personal Wants.

READ THIS COLUMN CAREFULLY,—You will find inquiries for certain classes of articles numbered in consecutive order. If you manuwill find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry. MUNN & CO.

Marine Iron Works. Chicago. Catalogue free Inquiry No. 5153.—For makers of strong fourwheeled carriages for one or more horses.

Autos.-Duryea Pewer Co., Reading, Pa

Inquiry No. 5154.-For makers of street lamps. "U. S." Metal Pelish. Indianapelis. Samples free. Inquiry No. 5155 .- For manufacturers of gang

For bridge erecting engines. J. S. Mundy, Newark, N. J. Inquiry No. 5156.—Wanted, a high Columbia bicycle or Star wheel.

Handle & Spoke Mchy. Ober Mfg. Co., 10 Bell St. Chagrin Falls, O.

Inquiry No. 5157.-For a power machine for weaving wire.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, ∇t .

Inquiry No. 5158.—For makers of agricultural implements.

American inventions negotiated in Europe, Felix Hamburger, Equitable Building, Berlin, Germany.

Inquiry No. 5159.-For makers of lighting rods. Non-retillable bottle. Simple, practical and non-retillable. Address R. T. McKenzie. Spring Hill, Miss.

Inquiry No. 5160.—For makers of electric welding machines.

WANTED.-Manufacturer on royalty for a patented

machinists' tool. Address Profitable, Bex 773, N. Y. Inquiry No. 5161.—For machines for making paper tubes similar to shotgun shells.

Edmonds-Metzel Mfg. Co., Chicago. Contract manufacturers of hardware specialties, dies, stampings, etc. Inquiry No. 5162.-For manufacturers of hand

Machine Work of every description. Jobbing and re pairing. The Garvin Machine Co., 149 Varick, cor. Spring Sts., N. Y.

Inquiry No. 5163.—Wanted, producer gas system using coal.

Send for new and complete catalogue of Scientific and ther Books for sale by Munn & Co., 361 Broadway New York. Free on application

Inquiry No. 5164.—For the address of Pomeroy, manufacturer of small saws, patterns, supplies for sawing, etc.

The largest manufacturer in the world of merry-go rounds, shooting galleries and hand organs. For prices and terms write to C. W. Parker, Abilene, Kan.

Inquiry No. 5165.—For manufacturers of glass aper weights for advertising purposes. We manufacture anything in metal. Patented arti-

cles, metal stamping, dies, screw mach. work, etc., Metal Nevelty Werks, 43 Canal Street, Chicago.

Inquiry No. 5166.—For machinery for making school slates and frames for the same.

Empire Brass Works, 106 E. 129th Street, New York. N. Y., have exceptional facilities for manufacuring any article requiring machine shop and plating room.

The celebrated "Hørnsby-Akrøyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Ma-chine Company. Foot of East 138th Street, New York.

Inquiry No. $5168.-\mathrm{Fer}$ makers of foot power lathes for buffing and polishing. In buying or selling Patents money may be saved and time gained by writing Chas. A. Scott, 705 Granite Building, Rechester, New Yerk.

Highest references. inquiry No. 5169.—For apparatus to distill wood alc hol and save the by-products.

South Canal Street, Chicago.

Inquiry No. 5170.—For a machine for converting rice into a powder of a fineness to warrant its use as a cosmetic.

Territorial Rights for sale, side rail burglar proof fastener and ventilator, Patent No. 750,420. Meets a great demand. Full information by addressing

Jeseph Andersen, Seattle, Wash.

Wanted-Revelutionary Documents, Autograph Letters, Journals, Prints, Washington Portraits, Early American Illustrated Magazines, Early Patents signed by Presidents of the United States. Valentine's Manuals of the early 40's. Correspondence solicited. Address C. A. M., Box 773, New York.

An estate, helding a centrelling interest in a corporation manufacturing patent devices for use in the your Notes and Queries columns the following to enable it to adjust estate matters. An excellent ever take the place of the telegraph in railinquirers disclosed. Elliott, Box 773, New York.

Inquiry No. 5173.—For automatic machinery for turning spools, knobs, handles, etc.

Cash paid for second hand material, gas mantle clippings and dust, metallic bismuth, mercury, platina, brenze pewder, etc.

Jesef Radnai, 331 E, 80th St., New Yerk. Inquiry No. 5174.—For manufacturers of machinery for making chewing gum.

connery for making chewing gum.

Inquiry No. 5175.—For manufacturers of briquettes for use in carriage heaters.

Inquiry No. 5176.—For makers of statuettes and small novelties in plaster, bisque, papier maché and white mecal.

Inquiry No. 5177.—For makers of hand or foot ower machines for grinding lawn mowers.

Inquiry No. 5179.—For manufacturers of tobacco-Inquiry No. 5180.—For manufacturers of cigar-te-making machinery.

ette-making machinery.

Inquiry No. 5181.—For the address of the maker of or dealer in the "Wonder-Working World." Inquiry No. 5182.—For makers of laundering machinery.



HINTS TO CORRESPONDENTS

Names and Address must accompany all letters on attention will be paid thereto. This is a sour 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 endeaver to reply to all either by letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

The same.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(9319) E. N. asks: How many pounds will a fan pull, 5 feet in diameter with four blades, the size of the blades at end to the shaft being 81/4 inches and 201/4 long by 24 % at the wide end, at a speed of 1,000 R. P. M.? Also state horse power required to run a fan that size and speed. A. The draft of a fan varies with the speed nearly as the square of the number of revolutions per minute; and also with the angle of the blades. We estimate that the fan you describe will pull a force of 9 ounces per square inch, and will require 10 horse power to run it at 1.000 revolutions per minute.

(9320) D. E. S. says: In reference to query 9286 by F. B. in issue of January 23, 19●4, y•u have repeatedly, in back numbers of the SCIENTIFIC AMERICAN, answered in the hunter and squirrel puzzle that the hunter did $n \bullet t$ go around the squirrel (which is correct). You turn back now, and say he did. If he did. why didn't the hunter shoot the squirrel when he came in sight of it, which he logically must do to pass it, and save all these years of misery? At what point of the circle did the hunter first see the squirrel? May I be allowed to add a dog to the circus, which also passes around the tree with the hunter, but on a circle slightly less in diameter than the hunter. Dees the hunter go around the dog too? The circles made by the squirrel and $\ensuremath{\text{deg}}$ do not enter into the question. A. We have answered the squirrel question perhaps a dozen times within a year, and always the same way. No other answer has been given for the last seven years, since the present editor has been in Inquiry No. 5167.—For manufacturers of awning bardware. $\bullet \text{pini}\bullet n.$ It is simple nensense to say that the man must see the squirrel if he goes around it. Suppose the tree to be hollow and the squirrel were in the inside $\bullet f$ the tree, $h \bullet w$ would the man see it? Nor does a dog make any difference, except to confuse the thinking in regard to the squirrel.

(9321) H. W. F. writes: Some time age I visited a factory in which large thin pieces of crucible steel were heated in a molten Manufacturers of patent articles, dies, metal stamping, serew machine work, hardware specialties, machinity and tools. Quadriga Manufacturing Company, 18 the same purpose. I find that so much dress the same purpose, I find that so much dross accumulates on the surface, and so quickly, that it is almost impossible to get any of the pieces of steel to come away from the bath quite free frem dress. I believe new that the bath which I saw was not lead, but some other metal or mixture. Can you suggest a metal or a mixture of metals that in the molten state would remain free from dross on surface? Melted lead is the $\bullet nly$ metal that is used $f \bullet r$ the hardening bath. The lead should be skimmed clear and powdered charcoal spread ulletn the surface ulletf the lead. Sulletmetimes carbenate of soda is sprinkled on the surface; it gathers the lead exide. If the seda slag sticks to the articles, it is thrown off when the articles are dipped in the water.

(9322) C. T. asks: Please answer in questions: Do you think that telephones It seems very unlikely that the telephone will gives a copy which is a permanent record of what has been sent. The telephone does not. The telephone is limited in distance more than the telegraph.-Light is invisible. We see objects, not the light which makes the object visible; the flame $\bullet f$ a lamp, $n \bullet t$ the light which the flame gives to render things in the room visible.

(9323) F. F. asks: It would be a faver if veu would let me knew hew to make and use the dip solution that is used to make •ld brass articles l••k new. The c•l•r desired Inquiry No. 5178.—For manufacturers of coal is the same color as a new movement of a sining machinery. clock, and is of a yellow green. I understand that the articles are lacquered after the dip. $\Lambda.$ The bright luster ulletn brass articles by the dipping process is made by first cleaning the articles from grease or dirt by dipping in a hot and streng selution of seda or lye. Rinse in het water and dry in clean sawdust. Then dip in

an acid bath of equal parts of sulphuric and nitric acids, strong, for a few seconds or until a bright color is produced, wash quickly in beiling het water, $\mbox{d} ry$ and lacquer with a thin solution of shellac in pure alcohol. The articles should be heated as not as boiling water, and apply the larguer quickly with a soft brush.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

February 16, 1904.

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]





ATHES SEBASHAN LATHE COMMANDERS

Foot and Power and Turret Lathes, Pan-shepard Lattic Co., 133 W. 2d St., Cincinnati, O.

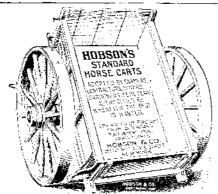
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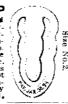
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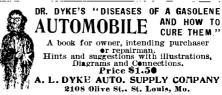
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