RECENTLY PATENTED INVENTIONS. Pertaining to Apparel.

SWEAT-BAND.—T. J. Asch, New York N. V. The invention refers to hats and other head coverings, and its object is to provide a new and improved band for head coverings, notably straw hats, soft and stiff hats and the like, and arranged to bear softly on the head of the wearer and to readily conform to the configuration of the head.

Heating and Lighting.

THERMOMETER AND OTHER SIMILAR DEVICE HAVING SATURATED VAPORS .-J. B. FOURNIER, 62 Quai des Orfévres, Paris, France. The invention relates to improvements in devices in which the part sensible to heat incloses a saturated vapor the tension of which has for its purpose to act as a manometer or other member sensible to the pressure, located heat.

Of General Interest.

LIGHTNING-ROD TERMINAL.-J. P. TUR-NER, New York, N. Y. The object here is to rent, whereby danger of the rod being over-charged and melted is avoided. This is accomplished by passing the rod through a substantially horizontally disposed tapering perforated body filled with charcoal and having branch conductors leading from its enlarged end. The perforations permit the water to seep through, maintaining the terminal in a high state of conductivity.

SCALE.—J. W. FREE, Swissvale, Pa. In this case the invention pertains to scales used for determining sizes of tools, wire, sheet material, and the like, the more particular object being to provide a construction having intelligible characters placed thereon and admitting of a large variety of general uses.

AIR-CUSHION FOR HORSESHOES .- J. H. FAWKES, Detroit, Mich. This invention comorises a substantial ring shaped shoe of suitable material, secured to the hoof of the horse by the usual nails. A clamping ring fits within the shoe, the ring being secured to the shoe by screws. A resilient bag is arranged within the clamping ring, and a cover of leather or fabric material is placed over the bag, the edges of the cover being inserted between the ring and the shoe.

Machines and Mechanical Devices.

COMBINATION-LOCK FOR DOORS.—D. E. LOMBARD, New York, N. Y. The invention pertains to certain improvements in combination locks for doors, and more particularly to that type of lock in which the door may be opened from either side by independent operating members, one of which includes a mechanism which must be operated in a particular manner in order to withdraw the lock bolt.

WOODWORKING-MACHINE.-C. L. HART-WELL, Chicago Heights, Ill. The invention contemplates a machine for turning irregular or non-circular forms, the machine being more especially designed for shaping the eye portion of ax and other handles, although it is not limited to this particular operation, as it may be used with advantage in the shaping of other articles

CARVING-MACHINE .- W. F. MANGELS, New York, N. Y. This machine accurately and quickly reproduces in wood or other materials a plurality of parts simultaneously, according 75 per cent; polished copper about 85 per to a pattern. When the parts are in position cent; polished gold and silver about 97 per and the motors running, the operator takes cent. The solar motor in California is run by hold of the holder and moves the pointed head steam produced by boiling water with the heat of the tracer toward the pattern, so that the revolving carving tools come in contact with and cut the blocks, the tools used being rough ening tools, to give an outline shape to the block according to the pattern.

SHAFT - POLISHING MACHINE. — J. S. GRIFFIN, Roslyn, Wash. In the present patent the invention has reference to machinery for use in polishing shafting; and the object of the improvement is the production of a machine of this class which is simple in construction, and provided with feeding the shaft to the rolls.

MECHANICAL MOVEMENT .- W. SULLIVAN, Hot Springs, Ark. The object of this inventor is to provide a new and improved mechanical movement for converting reciprocating motion into a rotary motion in a very simple and effective manner. The movement is durable in construction, composed of comparatively few parts, and not liable easily to get out of order.

EARTH SCRAPER-J. E. TUCKER, Jennings, Kan. The invention relates to that class of scrapers and excavators which are employed for handling or transferring masses of earth, sand and other material from one point to an other along the surface of the earth by being dragged back and forth between two points from the action of cables winding on spools which are turned by separate frictions and so constructed that either may receive power separately while the others are released.

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

Full hints to correspondents were printed at the head of this column in the issue of August 8th, or will be sent by mail on request.

(10840) W. M. asks: Please inform me the meaning of the term three-phase or single-phase, speaking in this case about alternating electric currents. Kindly explain the difference in the two. A. When a dynamo produces three e. m. f.'s 120 deg. apart, three currents result with suitable wiring. Such a current is three-phase. If but a single e. m. f. is at any distance from the said part sensible to produced, the resulting current is a single heat. It is closely associated with other inven- phase. Full explanation of the features of tions described in Mr. Fournier's formerly filed alternating currents, and all electrical currents applications. The purpose of the said improve- and apparatus, is to be had in Sloane's "Handy ments is to locate on a predetermined length Book of Electricity," which we send for \$3.50, the part of the apparatus which is sensible to and which is indispensable to workers with electricity.

(10841) G. H. H. says: Will you kindly tell in your Notes and Queries column why the sun and the moon when they appear near the horizon are apparently so much larger than provide for the speedy dissipation of the curapparent size of the sun and the moon when seen near the horizon is due to the fact that we contrast them in this position with terres trial objects, and their greater distance impresses the mind with their great size. With a measuring instrument the optical illusion vanishes. The moon measures slightly larger when high in the sky than when on the horizon, since she is then about one-sixtieth nearer the eye than when on the horizon. For this see Todd's "New Astronomy," which we send for \$2 by

> (10842) A. S. asks: If a cubic hole were dug in the center of our earth about 8 x 8 x 8 feet, and a man could be in the hole. how would he know whether his head were up or down, or he were lying down or standing upright? A. If a man were in a hole at the center of the earth he would not know which direction was up or down; there would be no such thing as direction. This would be the case, without reference to the size of the hole even if it were thousands of miles across. If the earth were hollow, a body anywhere in the hollow would be equally attracted in all directions and would lose the sensation of weight or gravitation. All directions would be the

(10843) A. J. Z. says: 1. Is there any method known, theoretical or practical, by which intense heat may be transmitted a distance of say twenty feet by other means than that of heating an agent and transferring the heated agent to the desired spot? A. There is probably no way in which an intense heat may be transmitted twenty feet from the source of heat. The heat of the sun may be reflected, but any terrestrial heat is too feeble for such transmission. 2. When a sunbeam is reflected by a mirror, how much, if any, of the heat is reflected with the light? A. The heat of the sun's rays is always reflected with the light. What part of the whole amount is reflected depends upon the material of the reflector. In this matter quite different results have been reached by different investigators, so that any figures must be taken with allowance, as being to a degree uncertain. All agree that lampblack reflects no heat. Water too may be taken to reflect none. Glass reflects about 10 per cent; polished iron about of the sun which has been reflected by glass plates upon the boiler.

(10844) S. G. B. says: Am I not right in stating that the revolution of the earth on its axis gives the Dipper the appearof the sky each day. The Dipper has this motion with all the other stars. The rotation of the earth is from west towards the east, and the stars appear to move from east to west, rising in the east and setting in the west Those stars near the north pole with us do not set nor rise, but move toward the east in the lower part of their motion and towards the west in the upper part.

INVENTIONS INDEX OF

For which Letters Patent of the United States were Issued for the Week Ending August 25, 1908.

AND EACH BEARING THAT DATE

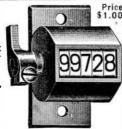
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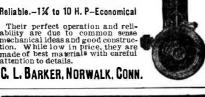
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7 8 4	Explosive, C. E. Bichel Extension table, C. Wiefelspuetz Facing tool and counterbore, combined, B.	896,887 897,262
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8 6 5 7	Fluid mixing apparatus, W. F. Traudt Fluid pressure brake, W. V. Turner Folding table, H. L. Haskell Food materials, preparing, W. E. Williams	896,956 896,957 896,907 897,181
793	Foot rest, J. Flindall Footwear, F. H. Addis Footwear, R. Christensen	896,982 896,880 896,971
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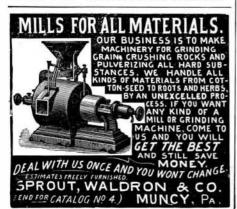












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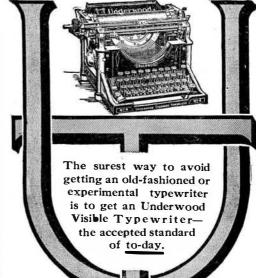
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I MADE \$50,000 IN FIVE YEARS IN THE MAIL ORDER BUSINESS; began small I will show you how to do the work. Send for particulars. Manager, Box \$65a, Lockport, N. Y.

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FOR SALE.—Patent No. 886,889, issued May 5, 1908 A fish-tail propeller. Reduces friction to a minimum giving greater obtainable speed than ordinary pro-peller, with reduced coal consumption. I have sold United States patent right, over same. Address Frant S. Merrow, Apartado No. 684, Mexico City.

Inquiry No. 8628.—Wanted to buy paving block machines for use with partly fluid substances.

CHEAP FOR CASH.—Grob's folding fire hose bridge. Patent No. 88678. Patented May 5, 1908. For full particulars address Robert C. Grob, 446 Wabasha Street, St. Paul, Minn.

Inquiry No. 8650.—Wanted to buy file cutting machinery.

FOR SALE.—Patent No. 776482. Pyrographic penci exciter and regulator. For full information address owner, J. Anderson, 119 Beach Avenue, Chicago, Ili.

Inquiry No. 8667.—Wanted to buy needle, pin and pen machinery.

FOR SALW.—Patent No. 891,099, June 16, 1 08. Universal fountain ben support. Enables one to put pen aside temporarily on desk or on clothing if standing. Henry Priester, 1736Garfield St., Bronx, New York City.

Inquiry No. 8685. - Wanted to buy 1½ to 2 inch No. 13 to 18 tempereds pring steel.

FOR SALE.—Nos. 12,070 and 881,745, outright sales On new supplemental hopper for grinding mills. Ad-dress Frank B. Tice. P. O. Box 581, Polo, Ill.

Inquiry No. 8687.-Wanted to buy motor plows.

PATENT No. 876,448.—Antomatic disinfector for sheep and hogs, something every breeder is in need of. Will sell out right or on royalty. Address Henderson Hol-lowell, Harrison, Ohio.

inquiry No. 8691.—Wanted to buy for export to British Guiana alcohol motors.

PATENT No. 881.535 on Rotary Rubber Heel outrigbt or on Royalty. Patent granted March 10th, 1908. R. H Bennett, 8 Grand Street, Amsterdam, N. Y,

Inquiry No. 8692.—Wanted to buy kerosene of motors for export.

PATENT No 870,340. Patented November 12th, 1907 Folding Stepladder. Dies and sample ladders made A. Dahl, 302 W. 144th Street, New York.

Inquiry No. 8694.—Wanted to buy fly wheels and ball bearings.

HELP WANTED.

WANTED.—Man, must be willing to learn and capa ble of acting as onr local representative. No canvassing or soliciting. For particulars address National Co operative Realty Co., Dept. I. B. Z., Washington, D. C.

Inquiry No. 8699.—Wanted to buy two-stranded soldered wire for heddles.

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Inquiry No 8710.—For machinery for carding spinning and weaving jute.

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COMPLETE LISTS of manufacturers in all lines supplied at sbort notice at moderate rates. Small and special lists compiled to order at various prices. Estimates should be obtained in advance. Address A. A. H., Bex 773, New York.

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Inquiry No. 8726.—For parties who make "Yan kee Metal Polish."

Inquiry No. 8728.—Wanted the address of The Frear Novelty Co.

Inquiry No. 8735.—For parties making a still for the purpose of extracting alcohol from saw-dust.

Inquiry No. 8736.—For mannfacturers of machinery for making matches, also machinery for making purses and hand bags.

Inquiry No. 8737.—Formanufacturers of machinery for making tooth-brushes, shaving brushes, gal vanized water buckets, locks, nibs and holders.

Inquiry No. 8738.—For parties manufacturing casein cement.

Inquiry No. 8742.—For manufacturers of water still, also of thermore eter tubing.

Inquiry No. 8746.—For dealers in paper and card-

Inquiry No. 8748.—Wanted to buy polished or lac-Soldering machine for commutators, H. quered brass in sheets 29 gauge, quarter hard in temper. Stone Inquiry No. 8749.—For makers of very large springs, used for running machinery.

Inquiry No. 8751.—For manufacturers of brass, tea, dessert and table spoons for silver plating.

Inquiry No. 8752.—For manufacturers of paper mill machinery for the manufacture of strawboard and wrapping paper.

Inquiry No. 8757.—Wanted address of the manuacturer of "The Index Incandescent Kerosene

Inquiry No. \$759.—For a firm to do porcelain enameling of ventilator tops, such as used on the outside of arc lamps.

Inquiry No. S761.—Wanted to buy a small carriage propelled by electricity so that a lame person may get about by himself.

Inquiry No. 8766.—For parties makin press

Inquiry No. 8769.—For manufacturers of an appliance to attach to the old style razor blade to make same a safety razor.

Inquiry No. 8770.—For parties who make short link twist chains, links from 1/2 inch up, Inquiry No. 8771.—Wanted to buy tune sheets for Criterion music boxes.

Inquiry No. 8774.—For machinery for making bags from alsal bemp.

Inquiry No. 8775.—Wanted to buy stock novelty or lewelry catalogues.

Inquiry No. 8778.—For manufacturers of reapers, binders and mowers.

Inquiry No. 8779.—For parties manufacturing gas, gasoline, steam engines and boilers; also packing and mineral wool, steam supplies, iron and lead pine, power transmission machinery and steam fitters' tools.

Inquiry No. 8780.—For parties who make gasoline stoves.

Inquiry No. 8783.—For manufacturers of small drummer's traps as whistles, rattles, rooster crows, etc. Inquiry No. 8784.—For manufacturers of alcobol burners for lights and stoves.

Inquiry No. 8786.—For parties to manufacture glass balls blown about 1½ inch in diameter with a ½ inch hole through the center, should hold about 200 pounds to the square inch of steam pressure.

Inquiry No. 8787.—For parties who manufacture eat-gut.

Inquiry No. 8790. - For the manufacturer of Brooks improved hand pump."

Inquiry No. \$792.—For a firm that manufactures glass holders made of glass.

Inquiry No. 8794.—For manufacturers of the "Ideal Dust Pan."

Inquiry No. 8795.—For a mechanical device for catching or destroying files, mosquitos, etc.; also traps for catching snakes.

Inquiry No. 8796.—For concerns manufacturing stills adapted to the manufacture of denatured alcohol.

Inquiry No. 8797.-For manufacturers of fiber. Inquiry No. 8798.—For manufacturers of microlens used in small articles such as pencils, charms, etc.

Inquiry No. 8799.—Wanted to buynew or second-hand box nalling machine for small packing cases.

Inquiry No. 8800.—Wanted complete data in regard to pegamoid. Inquiry No. 8802.—Wanted to buy machinery for cutting and polishing oilstones, whitestones or grind-

stones.

Inquiry No. SSO3.—For manufacturers of flies. screws. druggists' supplies, bardware in general, and agricultural macbinery.

Inquiry No. SSO4.-For parties dealing in windmills. wood split pulleys, wheelbarrows, cutlery and picks.

Inquiry No. 8805.—Wanted to buy outfits and supplies for brazing

Inquiry No. 8806.—For manufacturers of drawing materials.

Inquiry No. \$807.—For dealers in second-hand ofton machinery. Inquiry No. 8808 - For manufacturers of machinery for making bungs for barrels. Inquiry No. \$809.—For the manufacturers of metalized flowers used for hat pins, etc.

Inquiry No. 8810.—For makers or importers of corous water bottles or jars to cool drinking water by evaporation.

Inquiry No. 8811.—Wanted to buy electric tattoong needles, inks and stencils. Inquiry No. 8812. Wanted to buy outfits for nanufacturing fuel briquettes from sawdust.

Inquiry No. 8813.—For manufacturer of the Steele" mixer for mixing food products, etc. Inquiry No. 8814.—Wanted to buy hand lever air amps, 1001bs, pressure.

Inquiry No. 8815.—Wanted to buy carriage and agon hardware, coal, iron and steel. wagon natuware, coan non anotect.
Inquiry No. 8817.—For a firm that forms small articles of wire, also a firm to make wooden rings about

Inquiry No. 8818.—Wanted to buy specialties in large quantities.

Inquiry No. 381.9.—For manufacturers of Excelling Transity No. 3820.—Wanted to buy pressed fiber boards 1 foot wide and from 1-16 to 14 inch thick.

Inquiry No. 8821.—Wanted to buy machinery for making a rough composition board, something like a straw board.

Inquiry No. 8822.—For manufacturers of dredging machinery to be operated by gas engine.

Inquiry No. 8823.—For manufacturers of crepe paper and paper novelties. Inquiry No. 8824.—For a firm to design and build an automatic machine for making finger shields. Inquiry No. 8825.—For manufacturers of a new device to split wood.

Inquiry No. 8826. - Wanted to buy small fuel compression machines both manual and engine power. InquiryNe. 8827.—For manufacturers of annealed

Inquiry No. 882°.—Wanted to buy thin, highly tempered steel for safety razors.
Inquiry No. 882°.—Wanted to buy machinery for making pins, hair pins, books and eyes.

Inquiry No. 8830.—Wanted to buy machinery for making brushes and baskets. Inquiry No. 8831.—Wanted to bny knitting machines.

Inquiry No. 8832. - Wanted addresses of high-grade label weavers, preferably in New York. Inquiry No. 8833.—Wanted to buy a peanut shell-ng machine.

Inquiry No. 8834.—Wanted to buy a 2-horse-ower gasoline engine for spray wagon working on

Inquiry No. 8835.—Wanted to bny toothpick machinery. Inquiry No. 8836.—Wanted to buy decorticating achines for sisal.

Inquiry No. 8837.—Wanted to buy folding um-Inquiry No. 8838.—Wanted to buy metallic tar-rets similar to clay birds used in shot-gun shooting. Inquiry No. 8839.—Wanted to buy cheap auto-nobiles.

Inquiry No. 8840.- Wanted to buy portable hydro. arbon pressure lamps.

Inquiry No. 8841.—Wanted to buy lunch counter and restaurant fixtures. Tugniry No. 8842.—Wanted to huv annealed glass Inquiry No. 8843.-Wanted to buy cigarette mak-

Inquiry No. 8844.-Wanted to buy inkstands.

Soldering machine for commutators, H.

Stone
Stone
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Sound reproducing machines, repeating
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Spacing table, H. A. Feindt, Jr.
Spoke socket, sheet metal, F. S. Loocker
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Spraying apparatus, H. F. B. Snyder.
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Stamp ing and franking letters, telegrams, etc., machine for use in, E. Moss.
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Steam trap, W. F. Sayles.
Steel sheet, composite coated, E. Norton.
Steen trap, W. F. Sayles.
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Steen trap, W. F. Sayles.
Steel sheet, composite coated, E. Norton.
Steen trap, W. F. Sayles.
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Spraying apparatus, H. F. B. Snyder.
Spraying apparatus, H. F. B. Snyder. Steam trap, W. F. Sayles.
Steam trap, W. F. Sayles.
Steel sheet, composite coated, E. Norton.
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S06,844
Sticker head attachment, J. Kridler.
S97,210
Stook releaser, J. A. Cahill.
S97,192
Stone sawing machine, Wegner & Meyers.
S96,812
Storage batte, Y. T. A. Edison.
S96,812
Store service _pparatus, C. W. McCormick.
S97,040
Strainer, ilquid, D. H. Mosteller.
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Street cleaning push cart, J. H. Byram.
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S96,796
Telephone exchange system, H. G. Webster.
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Telephone signal, C. Mahler.
S97,028
Telephone signal, C. Mahler.
S97,282
Telephone system, A. H. Weiss.
S97,028
Telephone transmitters, appliance for use with, O. H. Goodrich.
S97,232, 897,234 to 897,243
Telephone transmitters, appliance for use with, O. H. Goodrich.
S97,232, 897,234 to 897,042
Telephone system, A. H. Weiss.
S97,025
Thermometer holder, L. R. Edwards.
S97,030
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S96,836
Tilling dovic eselective mechanism, A. B. Herrick
A. D. Joslin.
Toket record and train check, manifolding, J. O. M. Selbert.
S97,027
Ticket selling machine, Mayo & Houleham.
S97,030
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S97,030
Ticket selling machine, Mayo & Houleham.
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Violin, P. A. Amundson
Violin or other string instrument body, S.
Ulbrich
Violin rest, A. A. Goldenberg.
Vise, bench, O. A. Anderson
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Waist, E. M. Shively.
Wantage gage, M. A. Rutenber.
Washing machine actuating mechanism, J.
Edens 896,900 896,790 897,036 896,721 897,185 897,056 896,989 896,910 897,074 896,960

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Watch pocket, safety. M. E. Brown...
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Water gage, S. Donnersberg...
Water heater, electric, J. R. Ayotte....
Water, purifying and filtering, A. Vogelssing.
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 Vogelsang

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 ...
 897,039

 Water wheel, W. P.
 Spooner
 896,867

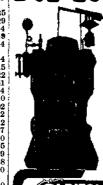
 Wells, gas trap for oil, R. C.
 Baker
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 Wind wheel, A.
 M.
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 897,132

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 E.
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Wire stretcher, W. G. Matson 896.927
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Wranping thread, braid, etc., card for, R.
W. Strassberger 897.153
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Filters and filtering materials, L. Anker 70,357
Flour, wheat, S. Hamill Co
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cialty Co
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Jehnsen Ce
Medicines, certain, Collins Medicine Co 70,393
eases. F. Schmid Chemical Co 70,400
Metal pelish, Levering, Murray & Haulen 70,352
Milk, John Wilde Evaporated Milk Co.,
70,413, 70,414 Melasses Pacific Ceast Syrup Co
Nail polish, A. A. Vantine & Co 70,380
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Oiling reads, preparations for, American Tar
Outlet switch and conduit bayes W H
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Canadian patents may now be obtained by the inventors for any of the inventions named in the forgoing list. For terms and further particulars address Munn & Co., 361 Broadway, New York.







The "JUNTA DE CANALIZACION Y PROYEEDORA DE AGUAS DE GUAYAQUIL" (The Sewerage and Water INC JUNIA U. CANALIZATION I FROTECOURA U. AUDAD U. CUAIAQUIL (The Sewerage and Water Supply Board of the City of Guayaquil, Ecuador, S. A.) desires to let contracts for the sewerage and paving works of the city, in conformity with plans, specifications, terms and conditions to be obtained on application to the International Bureau of the American Republics, 2 Jackson Place, Washinston, D. C. Bids to be made on special blanks prepared by the Board, and will be opened in Guayaquil, on December 1, 1998.

The Junta has sufficient annual revenues for the work, but desires to find a contractor or company to contract for both the material and financial features of the work.

For further information intending bidders may apply either as above or to the Legation of Ecuador in Washington, D. C.; the Consul General of Ecuador, Il Broadway, New Yerk, or communicate direct with the Chairman of the Board at Guayaquil, or with the Banco Comercial y Agricola of that City, which is the depository of the bonds of the Board.

The board would be pleased to have intending bidders send their representatives to Guayaquil to see for themselves the requirements asked and securities offered.

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