Experiments in the Prevention of Potato Disease.

Experiments in the prevention of potato disease were made at the Albert Farm, Glasnevin, and at Garryhill, County Carlow, in 1892.

According to the recently published report of the Agricultural Department, the Flounder, a variety extremely liable to disease, was selected, and the experiments were made with a view to ascertain whether the mycelium of the fungus reached the tubers through the tissues of the plant or by means of the spores falling upon the earth and then washed down to the surface of the tubers in the soil. The ground was covered early in June beneath the plants with cotton wool, carefully placed round the stems, with the object of filtering out the spores that might fall upon the ground. The disease appeared in July and the leaves of the plants were badly affected. When the potatoes were lifted in October it was found that there were no diseased tubers beneath the cotton wool, but a considerable amount of disease in the unprotected ground. Hence, it is provisionally inferred by those in charge of the experiments that disease spores reach the tubers by passing through the soil, but further experiments are necessary before stating definite conclusions. If this point be established, the advantage of high moulding, as advocated by Mr. Jensen, in providing a layer of earth of sufficient thickness to filter the rain water as it descends through the earth, and thereby arrest the spores before they could reach the tubers, will receive further proof. The potato crops in County Dublin are generally more free from disease than those grown in other parts of Ireland. This comparative immunity is attributed to the earlier planting of the crop, keeping the land free from weeds, and the general system of changing the seed from which the crop is grown year by year.

Cedar for Pencils.

Ask the next wise man you meet how many lead pencils are consumed per capita by the inhabitants of the United States and see if his wisdom will stand by him. If he answers correctly, says the *Northwestern Lumberman*, he will say something less than four for every man, woman and child.

The wood of which these pencils are made comes from Florida. It is red cedar, straight grained and comparatively free from knots. One of the manufacturing concerns has a mill in Florida where cedar logs are transformed into strips about seven inches long, three-eighths of an inch thick and three inches wide. These strips are crated and sent North. Each strip represents a half of six pencils. Six grooves are made lengthwise; into these grooves the graphite is placed and two strips are glued together. The block is then split into squares and the pencils finished either round or hexagon as desired.

May be you have never thought of it in that light, but the pencil industry uses up a large amount of cedar. An average red cedar log contains about four cubic feet of wood, and there are on an average 25 trees to the acre. If no mistake has been made in the rapid computation, it requires the timber from not less than 2,600 acres to supply the pencil manufacturers of this country. In addition considerable cedar is exported to Germany. Alabama was once the great pencil cedar producing State, but the cedar, which was clearer and larger than that found in Florida, is exhausted. Manufacturers have tested other kinds of wood with a view to finding a substitute for cedar, but so far without success.

It doesn't take long to make one pencil. The graphite is ground and mixed with great care, and in this mixing is the pencil maker's secret. The mixture is placed in a machine that might properly be called a little sausage stuffer, from the end of which is forced a constant stream of lead the proper size for a pencil. These threads of lead are cut in lengths, baked in an oven, and when hard are glued into the little grooves. The rough pencils are shaped either round or hexagon at the rate of 75 a minute, or 45,000 a day; 125 pencils a minute, or 75,000 a day, are colored and varnished; burnishing and stamping are done at the rate of 100 a minute, or 60,000 a day. This work is done by machinery operated by girls not more than 12 years of age, and who, no doubt, earn as much as a dollar or two a week.

The little blocks which are frequently used inside of the bunches of pencils are made of poplar, each block being grooved to fit the pencils. Twenty years ago you paid more for a pencil than you do to-day. The invention of machinery and the discovery of a graphite mine have reduced the cost of them at least 50 per cent. Foreign pencils have been gradually ousted, and at present, if I am not mistaken, we export about as many lead pencils as we import.

The few factories in this country hang together like brothers, and the chances are that if we should put our spare money into a lead pencil factory, they would make it warm for us. Whether you think a pencil is a good one or not, depends. If the profits on lumber are rolling in and you are making money hand over fist, you would be satisfied to figure with a burnt stick, but when it is uphill business to make the two ends meet, it takes an A 1 pencil to call out favorable comment.

Creameries and Typhoid Fever.

Another very important case has occurred in Ireland, in which it is alleged that the poison of typhoid fever has been distributed through the agency of a creamery. It seems that there is at present a serious outbreak of enteric fever in and around Castleisland, and that a local creamery had received milk from farms on which the disease existed, had separated the cream and then distributed the "skim" in proper proportion among the different farms. No proof was offered that this was the cause of the epidemic; the charge brought against the creamery being that, "being purveyors of milk or occupiers of a milk store," they had allowed the milk to be handled by a person in contact with one suffering from a dangerous infectious disorder. A penalty of £5 was imposed. The recent enormous extension of the creamery business, involving as it does the mixing of the milk from whole districts, evidently brings with it many dangers.

Formerly milk typhoid was characterized by sudden outbreaks widely spread among the customers of infected farms; but under the creamery system, by which each farmer receives back his proper proportion of skim from the general stock, enteric fever on any one farm tends to be rapidly distributed throughout the dairies served by the creamery, and it becomes quite obvious that, if the creamery system is to be safely worked, a very careful and thorough system of inspection of the farms must go along with it.—*British Medical Journal.*

Unknown Dead in a Great City.

Albert H. White, keeper of the morgue in this city, testified in a murder trial the other day that 140,000 bodies have passed through his hands since he has been the keeper. He added that he knew many cases where mistakes had been made as to the identity of dead bodies, and cited the case of a woman who claimed a body as that of her husband and had the body buried in Calvary Cemetery.

RECENTLY PATENTED INVENTIONS.

Railway Appliances.

AUTOMATIC GRAVITY CAR COUPLER.—A. R. Heath, Covington, Ind. According to this invention a pendant pointed hook on the drawbar through a slotted hole in the front end of the draught timbers and front ends of clevis, hooks to the bar in the opposing car, there being lift handles at either side of the car, or handles having a link connection at the top of the car. The drawbar is attached to rear springs in all cars. An old style link may be employed to couple with other couplers. There is a spring buffer in the deadwood and sill above, so that the hook pin or drawbar never buff, and the draught timbers and irons never buff out, and there is no occasion for trainmen to go between the cars. The engineer in his cab may operate the device to uncouple cars from the train. The coupling is simple, durable, and inexpensive.

RAILROAD FROG.—David Horrie, Kaukauna, Wis. This is an improvement in which the rails are utilized to produce the frog, in a combination of supported converged track rails and swinging rails bent near one end to approach each other, their shorter portions aligning with the track rails, between which and the adjacent ends of the swinging rails is secured a wedge-shaped filling block, having diverged limbs lying along the inner sides of the swinging rails, there being an intermediate frog point with apex introduced between the parts of the swinging rails. The construction is simple and durable, and adapted for the traverse of rolling stock in either direction of travel, facilitating also the safe crossing of one track over another track.

Electrical.

STORAGE BATTERY PLATE.—Chaimsonovitz P. Elieson, London, Eng. This invention relates to plates or non-tubular electrodes of the Plante type, and the battery plate is built up of parallel layers of corrugated and perforated metal, the corrugations of one metal being at an angle to those of the adjacent layer, so as to prevent nesting or coinciding, and preserve an even and constant groove space between and a fixed and permanent bracing of the layers in relation to each other, the plates so built up having their corrugations parallel to the plane of the plate, and having also detached vertical terminal edges. The buckling and consequent rapid disintegration of the plates is thus prevented, and uniformity of internal construction and resistance is insured.

Mechanical.

PLUMB RULE.—Frank Holt, South Pittsburg, Tenn. This is a rule having two graduated blades arranged at right angles, with their edges parallel to one another, and adapted to fit on and be secured to the corner of a wall. It is of simple construction, and more especially designed for the use of masons and bricklayers, enabling a workman to quickly and accurately lay the stones or bricks in proper position, according to the measurement indicated on the members of the rule.

TRACE CUTTING AND TRIMMING MACHINE.—Henry A. Dodge, Boston, and William T. Richards, Newton, Mass. This machine is adjustable to form traces of any desired width, and the knives are automatically operated upon the leather to simultaneously trim the side faces and round off the upper and lower corners, a trace of perfect construction being formed by simply passing the material through the machine. A wheel carrier automatically feeds the trace leather or strap to the knives, which are upon carriages at each side of the strap, and automatically adjust themselves to any desired thickness of strap.

STONE AND ORE CRUSHER.—Caleb G. Collins, Woodsburg, N. Y. This machine has revoluble rings in peripheral contact with each other, crushing rolls in interior frictional contact with the rings, and at points in alignment with the peripheral contact point of the rings, rocker arms carrying the shafts for the crushing rolls, and guide rolls carrying the rings. The machine is designed to reduce to a pulverized state stones, ores, and other hard and refractory substances, the machine being of large capacity, and operated at a minimum loss of power through friction.

Agricultural.

THRASHING MACHINE.—Alexander M. Lockhart, Mitchell, South Dakota. This machine is designed to be very effective in operation, and to completely separate the grain from the chaff. It has an elevator for raising the chaff into a conveyor, discharging into a fanning mill, which delivers the heavy chaff into a conveyor connected with a second elevator discharging into a return spout for carrying the chaff back to the thrasher cylinder.

Miscellaneous.

OVERHEAD CABLE TRACTION.—Walter G. Berg, New York City. This system is for propelling vehicles traveling on the ground or on tracks, but not for supporting their weight. It comprises an overhead fixed track on which travel wheeled hangers connected with an endless traveling cable, which has a flexible connection with a vehicle traveling on the ground or on a track, one part of the connection being secured to the vehicle and the other to the cable, the two parts being detachably connected. The improvement is principally designed for propelling cars and other vehicles in warehouses, mines, on wharves, etc., for transporting persons or merchandise.

ADJUSTABLE ODOMETER.—Theodor Schroeder, New Prague, Minn. This is an instrument to be attached to carriages, for the use of livery keepers, and for surveyors and civil engineers, to indicate the number of miles traveled. It is designed for application to the wheels of all vehicles, irrespective of their size, and still afford an exact measurement record, being adjustable to the size of the wheel, computing its circumference in feet and fractions thereof, and at each revolution transferring such measurement to different gears to be recorded in a cumulative way upon the register of the odometer in miles.

HEATER.—Joseph H. Adams, New York City. To properly heat and ventilate rooms, halls, shops, cellars, etc., where ordinary sources of heat are not practical or convenient, is the design of this invention, which comprises an exterior shell with air inlets at its lower end and outlets at the upper end, a central smoke pipe connecting with the source of heat having near its middle a damper or valve, while a series of smoke flues arranged in the shell are connected at their lower and upper ends with the smoke pipe to cause the heat and smoke to circulate through the flues, to heat the air circulating in the shell around the flues.

RACKING BEER.—August Werner, Brooklyn, N. Y. For the filling of beer, ale, and like liquids, from casks into kegs or other vessels, this inventor has devised a method and apparatus according to which the liquid is discharged from the storage cask to an elevated receiver, subjecting the receiver to gas pressure, passing gas into the vessel to be filled and discharging air therefrom, and then passing in the liquor charged with gas. The receiver is adapted to be raised and lowered, the beer preferably being filtered before being passed into it, and the pipe of the filling device having a liquid controlling valve, while a gas valve is connected with the gas supply for regulating the egress of the air from the keg and holding the gas in the keg while filling it with the liquid.

LUBRICATOR.—William A. Seibel, Independence, Iowa. According to this invention the machinery to be lubricated has movable projections and a bracket carrying a pulley, while the oil can has a spring-pressed slide valve and an arm engaging the projections, a lifting rope from the can passing over the pulley, and a guide rope depending from the side of the can. The improvement is more especially designed to facilitate the lubricating of elevated machinery, such as windmills, the operation being effected from the ground and obviating the dangers incident to climbing the framework or towers.

METAL FENCE.—George D. Hamilton, Innisfail, Canada. This fence has tapered, tubular metallic posts, with keyhole slots, and hollow metallic rails with concave ends whose side portions or ears are perforated, the fastening bolts being inserted through the posts in the slots, while flanged pickets are bolted to flanges on the rails. The fence is cheap, substantial, easily constructed, and may be made very ornamental.

TRUNK.—Benjamin Dickenson, New York City. This invention relates particularly to trunks having removable drawers, and provides a construction which facilitates the taking out of the drawers, but with an automatic fastening device arranged inside, so that it cannot be tampered with and is not exposed in any way to be broken, but which is automatically operated by the opening and closing of the trunk lid, the closing of the lid locking the drawers and the opening of the lid releasing them.

COMPOSITE BOTTLE.—Alphons Dryfoos, New York City. In the sides of this bottle are vertical niches or recesses in which are set small bottles of special construction, for holding a variety of liquids, the arrangement being such as to permit of pouring the liquid either singly from any of the individual bottles, or from two or more at the same time, for making a mixed drink.

FAN.—Max Rubin, New York City. This is a folding or pocket fan in which retaining arms are secured to the folding body and adapted to fold with it, receiving arms being connected with one another and with the retaining arms. The fan presents a very neat appearance, is readily opened for use, and occupies but little space when folded.

MIXER OR BEATER.—Arobine C. Mitchell, Ennis, Montana. This device is more especially designed for use on the materials or batter of which cake, etc., are made, the invention being an improvement on a former patented invention of the same inventor, and providing means for increasing or decreasing the speed, and whereby the basin may be more readily removed from the frame, also providing a bearing for the piston of the beater that it may be operated with least friction, the cost of manufacture being likewise reduced.

DESIGN FOR VASE SUPPORT.—Albert Wanner, Jr., Hoboken, N. J. This is an ornamental support for vases and other receptacles, in which continuous leaf-like effects in wreath form are shaped to project upwardly crisps and tendrils to join a ring-like margin at the top of the base.

NOTE.—Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention, and date of this paper.

NEW BOOKS AND PUBLICATIONS.

AMERICAN PLUMBING. A complete compendium of practical plumbing, from solder making to high class open work. By Alfred Revill. New York: Excelsior Publishing House. Pp. 224. Price $2.

The present work is written from the standpoint of the city of New York, and furnishes an excellent example of the improved metropolitan practice. Especially to be commended is its reference to the laws of the Health Department of the city of New York. This is something which will make it of use to other communities as a model of practice.

ESSAYS IN HISTORICAL CHEMISTRY. By T. E. Thorpe. London and New York: Macmillan & Co. 1894. Pp. 381. Price $2.25. No index.

So much has been written about theoretical chemistry, and experiments in it, that the appearance of a systematic work on its history from the days of Boyle to the era of Mendeleef, the latter representing the most advanced views of the present time, is particularly to be welcomed. Professor Thorpe's high qualifications for this work need no comment from us. The book absolutely fills what has been a decided want, and it should form part of every true chemical library. We cannot let it pass without paying due tribute to its excellence, but the work would be of many times greater value if it had been provided

with an index. We have seen few books in which the absence of this feature is more to be regretted.

CAMBRIDGE NATURAL SCIENCE MANUALS. Physical series. Light. An elementary text book, theoretical and practical, for colleges and schools. By R. T. Glazebrook. Cambridge: University Press. 1894. Pp. 213. Price $1.

This little work claims to embody the teaching of the physics of light by experiment. This, however, does not prevent it from presenting a very valuable treatment of the subject, in which the laws of light are well stated, and the use of simple experiments and not their abuse is given. It is designed for medical students at the Cavendish laboratory, but this really operates as a very minor restriction on its scope.

TELEPHONE LINES AND THEIR PROPERTIES. By William J. Hopkins. New edition, revised and enlarged. New York: Longmans, Green & Co. 1894. Pp. xvi, 268. Price $1.50.

The production of a adequate work on the subject of telephones, more especially on the lines and circuits, seems really to have filled a want existing in technical literature. We are convinced that in its practical details, as well as its examination of induction and the properties of telephone lines, it will be of great use to the practical man, as well as of interest to the student. It is very fully illustrated and can be confidently recommended to electricians.

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Distance Reading Thermometers.—See illus. advertisement, page 255. Ward & Doron, Rochester, N. Y.

Cheapest Water Power.—See top of 1st column, page 170. Also top of 2d column, page 239. Look, it will pay.

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Patent Electric Vise. What is claimed, is time saving. No turning of handle to bring jaws to the work, simply one sliding movement. Capital Mach. Tool Co., Auburn, N. Y.

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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.

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Minerals sent for examination should be distinctly marked or labeled.

(6049) H. D. says: Not long since a man was traveling through this section selling a preparation to remove warts, corns, etc. It only required two or three minutes to remove them. Of what substances and proportion was his preparation, and is there any danger in its use?

A. Salicylic acid ..... 30 grn.
Cannabis Indica (Indian hemp) ..... 5 "
Castor oil ..... ½ drm.
Collodion ..... ½ oz.

Mix and apply morning and evening for four days. Then soak the feet in warm water. If this be done faithfully, the corns are removed without any difficulty. The result is a clear light green solution. There should be no difficulty in its preparation. To prevent it from evaporating, keep the solution in a stoppered bottle. Be sure and use the Indian hemp, and not the American article; the latter is not easily soluble. We would not advise the use of any such preparation as you describe, as it is probably harmful. The formula given above is harmless.

(6050) J. C. asks for a negative varnish:

A. Try

Sandarac ..... 4 ounces.
Alcohol ..... 28 "
Oil of lavender ..... 3 "
Chloroform ..... 5 drachms.

Another is

Methylated spirit ..... 12 ounces.
Light amber shellac ..... 1½ "
Sandarac ..... 1½ "
Canada balsam ..... ½ drachm.
Oil of lavender ..... ½ ounce.

Before varnishing the film should be perfectly dry, and it will be well to heat it a little. Before printing from the varnished negative, warm the surface to evaporate all moisture that may adhere there. If these precautions are taken, there should be no staining of the film. 2. What will remove the silver stain caused by the film of aristo paper adhering to the surface of the negative? A. Usually the stain can be removed by rubbing it lightly with a tuft of absorbent cotton wetted with a weak solution of cyanide of potassium, previously soaking the negative for 10 minutes in a solution of iodide of potassium, 20 grains to 1 ounce of water. Gihon's opaque, we think, is made similar to water colors cakes usually sold, to artists and others. A cheap substitute would be a mixture of alcohol, shellac, and lampblack, which may be thinned or thickened as desired, with alcohol, and applied with a brush.

(6051) E. & M. ask: 1. Does the plane or convex side of a single plano-convex lens go next the sensitive plate in the "Photoret"? A. The convex. 2. Will the same answer apply to a single achromatic Waterbury lens? A. Yes. 3. Will you be kind enough to give us a formula for metol developer? A. Metol 5 grains, sodium sulphite 3 grains, water 1 ounce, add carbonate of potash 2 grains. 4. What is metol? A. The chemical name is monomethylparamidometacreosote. It is a derivative from coal tar. 5. What is hydrochinone? A. A derivative of cinchona bark. 6. Is para-amidophenol hydrochlorate injurious to use? A. No.

(6052) A. H.—1. Electrotypes of half tone blocks are used for printing from. 2. Carbon tissue can be had of the photo. dealers in different colors and is printed in the same manner as other photos.

(6053) J. E. W. asks: What is the largest number of shots on record fired by a Gatling gun per minute, and where was it done? A. The Gatling gun at the trials at Shoeburyness, England, was fired 400 rounds per minute. Later by improvements it is claimed to have been fired 100 rounds per minute, in each of its 10 barrels, or 1,000 rounds per minute. About 600 rounds per minute is the average practice of the best machine guns.

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May 15, 1894,

AND EACH BEARING THAT DATE.

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Feeding and watering live stock, device for, A. C. Wilch 519,935
Fence, D. D. Frisbee 519,996
Fence, D. H. Talbert 519,743
Fence, wire, J. W. Buchanan 519,759
Fence, wire, E. L. Schanck 519,928
Fence wire tightening device, H. Buck 519,940
Fences, tool for building wire, L. C. Highsmith 519,710
File holder, J. Roust 519,738
Fireproof curtain for elevator shafts, E. F. Clarke 519,990
Fires, process of and compound for extinguishing, A. C. Schumacher 520,012
Flies from houses, apparatus for expelling, R. F. Lotspeich 519,793
Fly trap, W. Thomae 519,745
Fork attachment, E. S. Lane 519,717
Fruit clipper, T. K. Godbey 519,999
Fruit stoner, J. Boeri 519,939
Furnace. See Boiler furnace. Metallurgic furnace. Smoke consuming furnace.
Furnace grate, Roney & Stranahan 519,775
Furniture, combination, E. L. Still 519,960
Furniture, folding, S. Aufrecht 519,987
Gauge. See Steam pressure gauge. Surface gauge.
Game apparatus, bubble, E. E. McNaughton 519,770
Garment hanger, N. Neilen 519,994
Gas burner for heaters, A. T. Welch 519,749
Gas engine, D. C. Luce 519,863
Gas engine, H. Swain 519,990
Gas holder tank, F. Mayer 519,908
Gas regulator, T. G. Lewis 519,945
Gate, W. J. Slack 519,776
Glue pot, steam heated, F. N. Hastings 519,950
Governor, G. J. Atham 519,795
Governor, steam engine, J. P. Devoissaud 519,942
Greenhouse, H. E. Hall 519,766
Grinding machine, R. H. Grant 520,019
Gun mounting, D. Adamson 519,965
Hair from the skin, composition for removing, J. Meiliuger 520,005
Hammock support for tent frame, W. S. Young 519,838
Handle. See Casket handle.
Hanger. See Garment hanger.
Harrow, J. C. Johnson 519,767
Harrows, machine for sharpening roller disk, T. Ellison 519,841
Harvester, corn, H. Claar 519,836
Hats by means of wire staples, machine for attaching sweat leathers and bands to, F. W. Cooper 519,885
Hay frame brake, F. H. Hoch 519,907
Heel stiffener machine, W. J. Young 519,936
Hinge, spring, R. Brindle 519,833
Hitching device, J. P. Muth 519,891
Hoof boot and pad, W. Sidebotham 519,822
Hose coupling, S. M. Beery 519,829
Hub, wheel, J. W. Cloud 519,807, 519,808
Indicator. See Door indicator. Electric indicator. Fare indicator.
Inseam trimming machine, Hanscom & Spencer 520,020
Iron, refining, Barton & McCormack 519,902
Ironing machine, H. E. Smith 519,974
Joint. See Compression joint. Rail joint.
Jointer guard, automatic, C. A. Daly 519,698
Kiln for burning earthenware, W. H. R. Kunstman 519,914
Kneader and mixer, dough, R. M. Shafer 519,740
Knee protector, A. C. Bull 519,760
Lacing stud fastener, P. A. Raymond 519,847
Lacing studs, process of and device for attaching, P. A. Raymond 519,848
Lamp, E. F. Trent ..... 519,851 to 519,854
Lamp burner, L. A. Milbank 519,865
Lamp, electric arc, J. F. Kester 519,912
Lamp, electric arc, W. Mathiesen 519,726
Lasting machine, J. Blakey 519,755
Lasting tool, hand, I. Frechette 519,859
Lathe, screw cutting engine, W. P. Norton 519,924
Lathing, metallic, G. Hayes 519,952
Lead salts from native ores, obtaining, A. G. Fell 519,704
Leaf turner, L. Swindle 519,934
Leather skiving machines, circular knife for, A. J. Tewksbury 519,744
Light concentrator for dentists, surgeons or others, W. H. Thrift 519,799
Lighting system, alternating current arc, T. Spencer 519,849
Liquid mixer, J. B. Thies 519,978
Loading apparatus, H. N. Carpenter 519,988
Loading machine, dirt, J. M. Younger 519,753
Loom, swivel, H. & P. D. Westerhoff 519,802
Looms, shuttle operating mechanism for narrow-ware, A. Weimar 519,896
Magnetic engine for reciprocating tools, H. S. McKay 519,870
Maps, etc., revolving holder for, A. B. Fretz 519,763
Match safe, A. Hansen 519,949
Medicine, time indicator for taking, O. Kettmann 519,913
Metal shaping and planing machines, reversing mechanism for, A. F. Champlin 519,941
Metal strips, machine for cutting and finishing, T. Brandt 519,903
Metallurgic furnace, J. Butler 519,985
Milk, method of and apparatus for preserving condensed, F. D. Smith 520,014
Mining tool, M. Hardsock 520,000
Mixer. See Liquid mixer.
Mop head, H. F. Low 519,917
Motion, electric mechanism for giving reciprocating, H. S. McKay 519,869
Motors, hand regulator or switch for, E. E. Keller 519,715
Motors, method of and means for starting synchronous, B. G. Lamme 519,862
Mower, lawn, S. P. Graham 519,900
Musical instrument, H. Lanefelder 519,816
Musical instrument, F. A. Richter 519,737
Musical instrument, stringed, H. E. Wurlitzer 519,751
Nail or spike, J. Floyd 519,810
Nozzle, steam jet, L. Schutte 519,796
Obstetrical apron, W. Jackson 519,713
Oil burner, C. C. Baldwin 519,754
Ore concentrating apparatus, W. L. & F. S. Card 519,987
Ores, refining, Barton & McCormack 519,901
Organ, J. Polukanis 519,925
Package for containing ices, etc., hermetically sealed, C. L. Dexter 519,839
Paper bags, making, Lorenz & Claussen 519,916
Parer, vegetable, A. M. Mundell 519,890
Patterns, method of and apparatus for marking, L. Schaefer 519,927
Pavement ornamenting device, M. Maurer 519,919
Paving block, J. L. Pope 519,973
Pedal, A. Perkins 520,009
Pen, A. M. Henry 519,953
Photograph apparatus, coin-controlled, J. A. Parsons 519,872
Photographic vignetter, J. B. Walker 519,800
Pianomuffler, O. H. Bollman 519,983
Piano or organ, upright, W. T. Smith 519,797
Planing machines, feed roller for wood, W. N. Sawyer 519,739
Plant setter, H. M. Hodson 519,712
Planter, seed, L. D. Benner 519,692
Plaquets of India-rubber, etc., forming tubular, Barr, Jr., & McKay 519,900
Plow iron clamp, W. A. Clark 519,806
Pneumatic dispatch tube gate, S. F. Leake 519,719
Pneumatic dispatch tube system, S. F. Leake 519,719
Poke, animal, F. Fisher 519,904
Pot. See Glue pot.
Pot or kettle, E. Gerber 519,764
Powder distributer, C. H. Leggett 519,720
Powder, manufacture of smokeless, F. G. Du Pont 519,702
Powdering plates, etc., machine for, B. Baugh 519,786
Press. See Screw press.
Printing and dividing endless lengths of paper, machine for, C. E. Preusse 520,010
Printing machine for copper or steel plates, J. Lariviere 519,915
Printing machine, rotating letter-press, F. X. Holzle 519,956
Propeller, pneumatic, L. H. Mayer 520,004
Pulley block, A. W. Browne 519,984
Pump and motor therefor, A. T. Welch 519,825
Pump, direct-acting steam, F. A. Burnham 519,867
Pump valve, steam-actuated, J. T. Hayden 519,843
Pumping apparatus, portable, D. Noble 519,871