Beam not collaborating in this edition. A thorough understanding of the methods laid down for the analysis of water will enable any chemist to judge of the potability of a water. Unfortunately, examinations of water are frequently not performed in the most thorough manner, so that any work which tends to assist the chemist to make more accurate determinations is a desirable addition to chemical literature. Dr. Leffmann says: "There can be no question that many of the published results as to bacteriologic examinations of water samples are without value. . . Whatever may be the shortcomings of the standard analytic examinations, it seems probable that for some years to come at least, the results will remain the most satisfactory basis for judgment as to the potability of a water." The section devoted to the purification of water for technical purposes is valuable, and it is only to be regretted that this subject was not treated more at length.

A HANDBOOK OF GARMENT DYEING AND CLEANING. By George H. Hurst, F.C.S. London: Charles Griffin & Company, Limited. Philadelphia: J. B. Lippincott Company. 1895. Pp. 180. 12mo. 32 illustrations. Price $1.75.

This book gives details of the methods used in large establishments in cleaning and dyeing garments. It deals with the technology of the textile fibers, the dry process of cleaning, the wet process, job dyeing of fabrics of all kinds, dyestuffs, mordants, dyeing machinery, finishing cleaned or dyed fabrics, scouring and dyeing of skin rugs and mats, cleaning and dyeing of feathers and straw bleaching and dyeing. In the appendix is described the curious process of "dry dyeing" in which water as the vehicle in which the dyes are dissolved is done away with, thus preventing shrinking. The vehicle employed in the new system is benzine or petroleum spirit in which coal tar colors are soluble. The goods are immersed in the bath until they have become dyed to the right shade, they are then wrung out and dried. Coal tar colors not originally soluble in the petroleum vehicle are described as being treated with some agent to make them soluble.

THE HEART OF A BOY. By Edmondo de Amicis. Translated by Professor G. Mantellini. Chicago: Laird & Lee. 1895. Pp. 290. 12mo. Illustrated.

"Cuore" is a classic in the literature of education. Pupils, teachers, and parents are alike held and taught by its expressive story. The present edition is from the 166th Italian edition. Signor Edmondo de Amicis is one of the most charming writers of the modern Italian school and his "Holland and Its People" is one of the most delightful books of travel which have been written.

SCIENTIFIC AMERICAN BUILDING EDITION.

SEPTEMBER, 1895.—(No. 119.)

TABLE OF CONTENTS.

1. An elegant plate in colors of a residence at Edgewater, Chicago, Ill. Three perspective elevations and floor plans. Mr. J. L. Silbee, architect. A pleasing design, with many good features.
2. A residence in the Colonial style, recently erected in Tennis Court, Flatbush, L. I., at a cost of $7,500 complete. Perspective elevation and floor plans, also an interior view. Messrs. Stevenson & Greene, architects, New York City. An attractive design.
3. A dwelling at Bronxwood Park, N. Y., recently erected at a cost of $6,000 complete. Two perspective elevations and floor plans. Mr. J. M. Lawrence, architect, Mt. Vernon, N. Y.
4. A residence at Mt. Vernon, N. Y., recently erected at a cost of $8,000 complete. Perspective elevation and floor plans. Mr. Walter F. Stickles, architect, Mt. Vernon, N. Y. An attractive design in the Colonial style.
5. A cottage at Bergen Point, N. J., recently erected at a cost of $4,200. Mr. Wesley J. Havell, architect, New York City. Perspective elevation and floor plans. A neat design, showing some original and pleasing features.
6. A dwelling at Bedford Park, New York City. Two perspective elevations and floor plans. Mr. Edgar K. Bourne, architect, New York City. An attractive design in the English Gothic style.
7. A two-family dwelling recently erected at New Haven, Conn. Two perspective elevations and floor plans. Cost complete, $5,080. Architects, Messrs. Stillson & Brown, New Haven, Conn.
8. St. Ann's Episcopal Church, Kennebunkport, Me. Perspective view and ground plans, also an interior view. Mr. H. P. Clark, architect, Boston.
9. A residence at Williamsport, Pa., recently erected for J. F. Fredericks. Architect, David K. Dean. Perspective elevation and floor plans. An attractive design.
10. A Colonial house at Far Rockaway, N. Y. Architects, Messrs. Child & De Goll. Perspective elevation and floor plans. A model design.
11. Miscellaneous contents: The Hayes metallic lathing, illustrated.—Neolith as a paint and decorative medium for relief work, illustrated.—Gas radiators, fire grates, etc., illustrated.—Improved heaters, illustrated.—Improved sash lock, illustrated.—American homes and the cabinet or parlor organ, illustrated.—The Laurie steel lath, illustrated.—The Austin & Eddy sash hanging attachment, illustrated.

The Scientific American Building Edition is issued monthly. $2.50 a year. Single copies, 25 cents. Thirty-two large quarto pages, forming a large and splendid MAGAZINE OF ARCHITECTURE, richly adorned with elegant plates and fine engravings, illustrating the most interesting examples of Modern Architectural Construction and allied subjects.

The Fullness, Richness, Cheapness, and Convenience of this work have won for it the LARGEST CIRCULATION of any Architectural Publication in the world. Sold by all newsdealers. MUNN & CO., PUBLISHERS, 361 Broadway, New York.

Business and Personal.

The charge for Insertion under this head is One Dollar a line for each insertion: about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

"U. S." metal polish. Indianapolis. Samples free.

Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J.

Handle & Spoke Mchy. Ober Lathe Co., Chagrin Falls, O.

For coal hoisting engines. J. S. Mundy, Newark, N. J.

Wood pulp machinery. Trevor Mfg. Co., Lockport, N. Y.

Wanted — Patented metal novelty manufactured. J. H., Box 773, N. Y.

Screw machines, milling machines, and drill presses. The Garvin Mach. Co., Laight and Canal Sts., New York.

Emerson, Smith & Co., Ltd., Beaver Falls, Pa., will send Sawyer's Hand Book on Circulars and Band Saws free to any address.

For the original Bogardus Universal Eccentric Mill, Foot and Power Presses, Drills, Shears, etc., address J. S. & G. F. Simpson, 26 to 36 Rodney St., Brooklyn, N. Y.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, $4; Munn & Co., publishers, 361 Broadway, N. Y.

A capable mechanical engineer wishes position as manager of some electric street railway interest. Is familiar with every detail of construction and can design and erect new work. Good references. Address Engineer, care of Scientific American office, New York.

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

Notes & Queries

HINTS TO CORRESPONDENTS.

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 advertised in our columns will be furnished with addresses of houses manufacturing or carrying 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.

(6619) W. H. B. asks: 1. A steamboat is going 20 knots through the water, with a 5 knot tide; how much will her log register—will it register over 20 knots? A. Will register only 20 knots. 2. Will tide running against an 8 knot boat affect her speed any more than it would a 20 knot boat going against the same tide? If the tide was running 5 knots against each, would they not each make 5 knots less per hour? A. No. The log only registers the speed of the boat through the water. The amount of the current must be subtracted from the boat's speed when running against the current, and added when running with the current, for their running time by land measure

(6620) J. M. says: I have a building 10 feet by 12 feet; it is sided outside and ceiled inside, and has a floor in it; can I keep ice in it by using plenty of sawdust, or will I have to take the floor out? A. The floor should be taken out and a good drain made; outside of house should be banked up with earth as much as possible to prevent circulation of air, and with a foot of sawdust all around the sides, and 2 feet on top of the ice, you will make a fair ice house. 2. What kind of starch do the Chinamen use, or do they use anything else to get the fine gloss on linen goods? A. The Chinese use ordinary starch, with a weak solution of borax and gum Arabic.

(6621) F. W. F. asks if there is any way, and how, that you can tell how far a stream of water can be thrown through 50, 100, 200, or any number of feet of hose when the hydrant pressure is given, the hose being 2½ inches and the nozzle pipe 1⅛ inches diameter? A. The principles and rules for computing the distance and height of fire streams and the friction in fire hose for various pressures and velocities are explained and illustrated in SCI. AM. SUP. No. 792, 10 cents mailed.

(6622) H. B. C. asks how to destroy aphides. A. To destroy common plant lice (Aphides) and other insects in the greenhouse and garden, the following remedy has been recommended by M. Cloetz, of the Jardin des Plantes, in Paris: 3½ ounces quassia chips, 5 drachms of stavesacre seeds, powdered and placed in 7 pints of water, and boiled until reduced to 5 pints. Dr. Hull recommends dusting slaked lime on the trees or bushes when the foliage is wet; syringing with soapsuds or tobacco water, or a strong decoction of quassia with soapsuds; also a weak solution of chloride of lime is said by Mr. Andrews to preserve plants from insects, if sprinkled over them. The following recipe is also highly recommended in an English horticultural journal as being almost infallible for mildew, scale, mealy bug, red spider, and thrips: 2 ounces flour of sulphur worked into a paste with water, 2 ounces washing soda, ½ ounce of common shag tobacco, and a piece of quicklime about the size of a duck's egg. Pour them all into a saucepan with 1 gallon of water, boil and stir for a quarter of an hour, and let the whole settle until it becomes cold and clear. It should then be poured off, leaving the sediment. In using it add water according to the strength or substance of the foliage. It will keep good for a long time if kept closed.

(6623) W. M. T., Jr., asks how to put titles on photographs. A. To print the name on the photograph, several methods may be adopted. The simplest is to write the title of the subject on a slip of paper with aniline copying ink, or with ordinary copying ink mixed with gamboge or vermilion. Then slightly dampen the surface of the negative near the bottom right or left hand corner in as unobtrusive and unimportant a portion of the picture as possible. Press down the paper with the writing upon it. Leave for a few minutes and then remove the paper, when the writing will be found to have adhered to the negative. When printed, the name will print out white. Another way is to write backward on the negative, while another and better plan is to write the name in Indian ink on the surface of the paper before it is printed on. The ink will wash off in the after operations and leave the name in white where the surface of the paper has been protected by the ink.

(6624) B. T. M. asks for information concerning perry. A. A fermented liquid, prepared from pears in the same way as cider is from apples. The drecued pulp must not be allowed to remain long without being pressed. In the cask, perry does not bear changes of temperature so well as cider. It is therefore advisable, if at the end of the succeeding summer it be in sound condition, to bottle it, when it will keep perfectly well. The red, rough-tasted sorts of pears are principally used for making perry. They should be quite ripe, without, however, approaching to mellowness or decay. The best perry contains about 9 per cent of absolute alcohol; ordinary perry, from 5 per cent to 7 per cent.

TO INVENTORS.

An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequaled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broadway, New York.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

September 17, 1895,

AND EACH BEARING THAT DATE.

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

Acid and making same, amido-tetrazotic, J. Thiele ... 546,604
Acid, process of and apparatus for making sulphuric, N. P. Pratt ... 546,596
Adjustable joint, O. C. White ... 546,459
Air brake, T. J. Hogan ... 546,448, 546,449
Air brake, railway car, D. Dunn ... 546,510
Album, S. Martin ... 546,337
Ale, etc., under pressure, apparatus for coloring, G. W. Robinson ... 546,458
Amalgamator and separator, G. A. & D. C. Blinn ... 546,378
Annealing furnace, Prust & Watkins ... 546,432
Anode for electrolytical apparatus, C. Hoepfner ... 546,328
Asphalt heating and mixing machine, R. Butcher ... 546,444
Atomizing and burning apparatus, fluid fuel, H. C. Fellenbaum ... 546,397
Auger, earth, E. Harper ... 546,529
Autographic register, G. A. Norcross ... 546,427
Automatic gate, D. M. Everton ... 546,381
Baby walker, S. Kell ... 546,333
Bag fastener, N. Brown ... 546,484
Band cutter and feeder, J. L. Barker ... 546,291
Banjo tailpiece, E. Jacoby ... 546,536
Barrel support, H. S. Covey ... 546,305
Bat, ball, A. H. Kennedy ... 546,540
Bearing, ball, T. J. Reid ... 546,557, 546,558
Bed bottom, spring, A. E. Beall ... 546,293
Bedclothes holder, R. T. Joy ... 546,538
Beer, apparatus for pasteurization of, W. Wirtz ... 546,393
Bellows, A. M. Wickenberg ... 546,370
Belt shifting device, O. R. Kuner ... 546,618
Bicycle frame and finishing same, G. Gross ... 546,446
Bicycle saddle, B. S. Seaman ... 546,350
Bicycle support, J. K. Getty ... 546,612
Bicycle toe clip, A. A. Bevin ... 546,412
Bicycle wheel, Le Blanc & Johnson ... 546,593
Billiard or pool table shade and reflector, E. F. Gennert ... 546,611
Bin. See Flour bin.
Binder, bundle, F. A. Hedges ... 546,326
Binder, temporary, E. B. Millert ... 546,492
Bird trap, F. Maierhofer ... 546,491
Blasting powder, B. C. Pettingell ... 546,552
Boiler gage, steam, M. Doerhoefer ... 546,589
Boiler, skimmer and throttler, automatic, J. Austin ... 546,290
Bolt. See Rotary bolt.
Bookholder and advertising device, C. L. Whipple ... 546,479
Book rest, adjustable, J. F. Young ... 546,570
Bottles, device for preventing refilling of, A. P. Francis ... 546,590
Brake. See Air brake.
Breast straps, center fastening for, E. J. Clark ... 546,300
Burner. See Gas burner.
Button, I. G. Platt ... 546,431
Button, G. Rossberg ... 546,598
Buttons to shoes, etc., metallic fastener for attaching, I. J. Saunders ... 546,349
Calculator, electric, W. C. Porter ... 546,553
Calendering rolls, pressure controlled apparatus for, A. S. Woodward ... 546,480
Can. See Oil can.
Car buffer and continuous draught device, G. E. Shuey ... 546,561
Car coupling, W. A. Keahey ... 546,539
Car coupling, automatic, A. E Singer ... 546,601
Car door fastener, T. C. Kennedy ... 546,541
Car fender, J. F. Girtler ... 546,524
Car wheel, S. B. Dearing ... 546,609
Cars, construction of railway, G. C. Kubiman ... 546,592
Cars, construction of railway, J. P. Maber ... 546,544
Carriage washing device, C. G. Trefethen ... 546,366
Cash register, F. J. Petersen et al ... 546,342
Caster, banking, Davis & Davey ... 546,608
Celery package, S. J. Dunkley ... 546,463
Cheese or butter cutter, E. G. Bennett ... 546,377
Chocolate dippers, apparatus for filling, C. Gousset ... 546,525
Chopper. See Meat chopper.
Chuck, W. W. Tucker ... 546,439
Cigarette machine, W. H. Butler ... 546,638
Cigarette machine, W. A. Hulse ... 546,452
Cigarette tubes, machine for making paper, C. A. Marchal ... 546,404
Cigarettes, method of and machine for making, W. H. Butler ... 546,637
Cigarettes, method of and mechanism for making tobacco, W. A. Hulse ... 546,451
Clamp. See Pipe joint clamp. Soldering clamp.
Clevis, plow, E. W. Kruse ... 546,645
Closet. See Dry closet.
Clothes drier, W. M. Rowley ... 546,559
Clutch operating mechanism, H. W. Hill ... 546,327
Coloring matter, black, R. Bohn ... 546,576
Combing machine, Sharp & Metcalfe ... 546,600
Compensator, D. Whitmore ... 546,569
Conveyer, W. T. Ferguson ... 546,315
Corn husker and fodder shredder, combined, G. W. Packer ... 546,550
Cornice, window shade, D. Boyer ... 546,296
Costume, bicycle and walking, M. L. Peck ... 546,496
Coupling. See Car coupling. Pipe coupling. Thill coupling.
Cover, milk can, L. Sturges ... 546,498
Crane, traveling, J. McCoy ... 546,426
Crank, W. E. Gard ... 546,520
Culinary utensil, E. O. Rabon ... 546,554
Cultivator, H. C. Kinner ... 546,334
Curbing, street, A. O. Jones ... 546,332
Cut-out, electric fusible, D. N. Gleason ... 546,613
Cutlery, table, Barry & Shaughnessy ... 546,376
Cutter. See Band cutter. Cheese or butter cutter. Feed cutter.
Cutting device, C. A. Byrd ... 546,607
Dental flask press holder and heater, M. R. Griswold ... 546,465
Dividing apparatus, L. Von Koppen ... 546,336
Dough dividing machine, C. Hesse ... 546,458
Drain, stall, F. Steinle ... 546,478
Dredger W. H. Diesselhorst ... 546,586
Drier. See Clothes drier.
Drilling machine, portable, G. Stites ... 546,628
Driving machine safety attachment, C. A. Copeland ... 546,416
Dry closet, H. A. Hecox ... 546,531
Electric circuits, connector for terminals of, J. E. Neber ... 546,472
Electric converter, C. F. Scott ... 546,476
Electric generator, thermo, H. B. Cox ... 546,417
Electric motor, F. H. Williams ... 546,442
Electrodepositing apparatus, H. L. Bridgman ... 546,483
Electrolytic apparatus, W. A. Rosenbaum ... 546,348
Electrolytic apparatus, A. Sinding-Larsen ... 546,353
Elevator controlling device, J. McAdams ... 546,406
Embalming couch, W. Clouser ... 546,302
Embossing machine, T. Nesom ... 546,621
Engine. See Rotary engine.
Engraving machine, J. G. Kingsbury ... 546,542
Envelope machine, E. Rau ... 546,433
Evaporating apparatus, liquid, L. F. Haubtman ... 546,530
Exercising machine, A. A. Whitely ... 546,568
Eye shade, A. R. Brandly ... 546,636
Fan, ventilating, F. W. Tuerk, Jr ... 546,630
Fastening device, M. L. Brown ... 546,578
Fatty substances, apparatus for extracting, E. Donard ... 546,509
Feed cutter and corn husker, A. Rosenthal ... 546,390
Fence stay, L. Clark ... 546,301
Fence wire stretcher, E. H. Baugh ... 546,575
Filter, A. Gudeman ... 546,527
Filter, E. M. Knight ... 546,335
Filter, mechanical or bag, L. A. Philippe ... 546,343
Filtering machinery, H. C. Atkins ... 546,634
Fire kindler, vacuum, N. H. Smith ... 546,356
Fireproof partition, ceiling, etc., T. Bailey ... 546,502
Fishing reel, A. J. Arnold ... 546,633
Floor or ceiling plate, A. J. Beaton ... 546,461
Flour bin, J. M. Patton ... 546,473
Flue stopper, J. K. Randles ... 546,555
Foot, artificial, G. E. & W. L. Marks ... 546,405
Furnace. See Annealing furnace. Garbage furnace. Ore roasting furnace.
Fuse block, H. N. Potter ... 546,475
Fusee placer, railway, J. R. Wright ... 546,605
Gage. See Boiler gage.
Garbage furnace, M. V. Smith ... 546,497
Garbage furnace, W. Swindell ... 546,438
Garbage incinerator or destroyer, portable, H. C. Fellenbaum ... 546,396
Garment stretcher, G. H. Gregory ... 546,422
Garter, B. Dreyfus ... 546,420
Gas burner, M. J. O'Reilly ... 546,340
Gas burner, kerosene, A. J. Huber ... 546,644
Gas fuel generator, oil, R. & E. W. Barlow ... 546,375
Gasoline burners, stand pipe for, O. & L. W. Daman ... 546,642
Gate. See Automatic gate. Sliding gate. Swinging gate.
Gate, J. W. Henry ... 546,385
Generator. See Electric generator. Gas fuel generator. Hydrocarbon generator.
Gun stock, T. Prasse ... 546,344
Guns, cocking and safety mechanism for breakdown, E. Flues ... 546,516
Hair drying apparatus, W. S. Simpson ... 546,352
Handle, W. F. Greene ... 546,464
Harness, W. F. Walls ... 546,567
Harness loop, adjustable, S. R. Monroe ... 546,455
Harness unchecking device, Ferris & Hart ... 546,514
Harrow, F. H. Norton ... 546,549
Harvester platform and carrier, S. T. Compton ... 546,415
Hat blocking and stretching machine, J. C. Chamberlain ... 546,640
Hat holder, G. J. Johnson ... 546,402
Hat sizing, felting, and pinning-out machine, W. H. Knowles ... 546,453
Hay loader, O. & W. Swenson ... 546,602
Headlight and sand box, combined, I. H. Davis ... 546,581
Hook. See Shutter hook.
Hose bridge, I. Niskern ... 546,387
Hydrocarbon generator and burner, reversible, B. G. Devoe ... 546,310
Inkstand, J. C. Miller ... 546,338
Insect powder distributer, J. Hetherington ... 546,533
Insulated electric conductor, F. Clouth ... 546,579
Insulating railway joints for electrical signals, T. O'Brien, Jr ... 546,494
Insulator, Dibb & Vickers ... 546,585
Insulator, G. Gerstenlauer ... 546,383
Ironing board, H. Ratcliffe ... 546,556
Jack. See Pegging jack. Pumping jack.
Joint. See Adjustable joint. Universal joint.
Knitted fabrics, machine for cutting, J. D. Hemphill ... 546,532
Lacing hooks, making, H. H. Cummings ... 546,641
Lamp, H. E. Shaffer ... 546,435
Lamp, alcohol, L. Wojidkow ... 546,632
Lamp chimney holder, A. J. Beck ... 546,411
Lamp, electric arc, D. Higham ... 546,534
Lamp, electric arc, S. P. Parmly ... 546,388
Lamp, electric arc, H. A. Seymour ... 546,625
Lamp harp ring, F. Rbind ... 546,597
Lamp mechanism, arc, Lantau & Anderson ... 546,403
Lamps, pliers for trimming electric arc, R. D. Tackaberry ... 546,361
Latch, O. R. Winslow ... 546,373
Lathe work holding device, Dreses & Barker ... 546,311
Lawn sprinkler, R. T. Joy ... 546,537
Level, magnetic pendulum, T. Zanger ... 546,501
Lifter. See Transom lifter.
Lightning arrester and cut-out, O. Gieseke ... 546,523
Liquid discharging mechanism, A. D. Howard ... 546,615
Liquid meter, W. M. Fowler ... 546,317
Locomotive, electric, S. H. Short ... 546,360
Loomstopmotion, W. H. Craig ... 546,418
Lumber on wagons, device for binding, F. Fountain ... 546,518
Mail bag catcher, J. E. Routh ... 546,599
Match box, J. B. Dennis ... 546,583
Measure, shoemaker's, A. S. Adler ... 546,287
Measuring tank, gravity, J. Hall ... 546,399
Meat chopper, R. L. Gore ... 546,384
Meat cutting machine, L. Steigert ... 546,437
Metals by electrolysis, apparatus for extracting, separating, and refining, D. Tommasi ... 546,364
Meter. See Liquid meter.
Mill products, proportional indicator for, A. C. Brantingham ... 546,413
Millstone balancing and leveling device, W. Weber ... 546,500
Motor. See Electric motor.
Motor, W. B. Bary ... 546,461
Music leaf turner, D. T. Fox ... 546,519
Musical instrument, E. J. Babbitt ... 546,574
Nail making and driving machine cutter, J. Boothman ... 546,577
Napkin holder, A. A. Vernon ... 546,566
Nozzle, exhaust, H. O. Olson ... 546,495
Numbering machine, Geary & Bracewell ... 546,382
Oil can, F. E. Helmig ... 546,467
Oil distributer, Ericson & Phinney ... 546,485
Onyx from pyroxylin compound, production of imitation, Stevens & Harrison ... 546,360
Ore roasting furnace, H. P. Holland ... 546,450
Package for pulverulent materials, D. H. Greene ... 546,526
Paper box covering machine, J. Leo ... 546,489
Paper box machine, C. W. Gay ... 546,318
Paper cutting machine, self-clamping, A. Malm ... 546,454
Paper holder and cutter, roll, D. McLachlan ... 546,339
Paste, adhesive, C. M. Higgins ... 546,401
Pasting and mounting sheets, machine for, H. Carlisle ... 546,506
Pegging jack, W. H. Dilion ... 546,587
Pen, F. J. W. Fischer ... 546,515
Photographic developing tray, W. I. Rood ... 546,347
Piano, electrical, G. W. Davis ... 546,582
Pick or like tool, S. Boyton ... 546,505
Picker sticker cushioned stop, R. T. Taylor ... 546,563
Picture mouldings, device for hanging, J. Christmann ... 546,507
Pile wire, C. Ford ... 546,517
Pinwheel blank, C. A. Montgomery ... 546,456
Pipe coupling, P. H. Farrey ... 546,314
Pipe hanger, A. J. Beaton ... 546,462
Pipe joint clamp, J. Brice ... 546,298
Pipe wrench, E. Wright ... 546,443
Pipes, cleansing sink or drain, Cavallaro & Sturm ... 546,445
Pistol, magazine, H. F. Wheeler ... 546,369
Piston, H. Vogt ... 546,441
Piston and cut-off valve for steam engines, G. C. Murray ... 546,594
Piston, syringe, C. J. Tagliabue ... 546,603
Planter check rower, corn, J. C. Tunnicliff ... 546,409
Planter, corn, L. D. Benner ... 546,482
Planter, corn, L. C. Evans ... 546,456
Planter, potato, J. Horscroft ... 546,535
Plow, subsoil sulky, O. E. Howe ... 546,530
Pole, metal, L. S. Pfouts ... 546,622
Pole tip, F. De La Matyr ... 546,307
Pottery machine, C. Breitschwerth ... 546,297
Powder. See Blasting powder.
Pressure device, C. Sinning ... 546,354
Printing machine for printing from rotary flat forms, J. T. Hawkins ... 546,325
Printing press, J. Brooks ... 546,414

© 1895 SCIENTIFIC AMERICAN, INC.