

ment of the invention by the first party, either as a useless experiment or by a surrender of it to the public.

Where an inventor makes no secret of his invention, cherishes and declares his purpose to procure a patent therefor, and exhibits it to those who, being engaged in the manufacture of articles of a similar character, are competent to judge of its value, in the hope that they may purchase, he himself being in no situation to engage in manufacturing, he is not *estopped* to assert a right to the invention and to claim a patent because his application is not made until nearly two years have elapsed.

Apart from the question of *abandonment*, the mere fact that, prior to the application for the patent, some one has obtained knowledge of the invention and placed the thing invented on sale, whether innocently or fraudulently, does not cut off the prior right.

As between the first inventor and the prior manufacturer no equity can be urged in favor of the latter, except that the former cannot claim damages or profits arising before his patent is granted.

The circumstance that such prior manufacturer is also an original inventor, and believes himself to be the first inventor, does not affect the question. He is in no better situation than one who ignorantly and innocently supposes that the invention is open to the public.

Infringement was admitted. The defenses urged at the hearing were non-patentability of subject matter, lack of priority of inventorship, abandonment of the invention, and estoppel, as is fully set forth in the opinion of the Court.

Patent sustained.
B. F. Thurston and C. E. Mitchell, for complainants.
C. F. Blake and C. R. Ingersoll, for defendants.

**Supreme Court of the United States.
Lamp Patent.**

CARLTON *et al.* vs. BOKEE.

In equity. Appeal from the Circuit Court of the United States for the District of Maryland.

MR. JUSTICE BRADLEY delivered the opinion of the Court: William Carlton and the Bridgeport Brass Company, as assignees of Christian Reichmann, filed their bill in equity in the court below to restrain the defendant, maker of the Comet burner, from infringing a patent for an improvement in lamps, granted to Reichmann on the 21st of September, 1858, and reissued to Carlton and one Merrill on the 11th of August, 1868. The lamp as patented to Reichmann was one of a large number of attempts made about that time to utilize petroleum and its various products for purposes of illumination. The old lamps adapted to sperm oil, lard, and other gross and sluggish oils were unfitted for the use of so volatile and dangerous a substance. In them the flame was set close to the lamp, and the tube holding the wick was projected downward into the oil, so that the heat of the flame might be communicated thereto in order to render it susceptible to the capillary attraction of the wick. Such an arrangement as this with petroleum would have produced a speedy explosion. This article required that the flame should be elevated as far as possible above the lamp, and that the metallic wick-tube should not communicate any heat to the fluid. This was one object to be attained in the burners required for the use of the new illuminator. Another was some contrivance for concentrating a current of air upon the flame itself so as to consume as perfectly as possible all the rapidly escaping volatile gases, both as a saving of light and as a preventive of the disagreeable odors which they would otherwise diffuse.

Two well known burners are conceded to have been in use before Reichmann's invention, which have a material bearing on his claims—the Vienna burner and Stuber's burner. These have been exhibited to us. The Vienna burner contained the flat wick-tube, the ratchet wheel attached thereto (but covered and not exposed as in Reichmann's), and a slotted dome above the wick for the flame to pass through, and a chimney. But the dome was not supported by slender arms, as in Reichmann's, but was connected with a gallery which supported the chimney and surrounded the wick tube and dome, and rested on the lamp or cap below, so that all the light of the flame below the dome was inclosed and lost, and could not issue out, as in Reichmann's burner. The Stuber burner, invented by John Stuber in 1856, and made in considerable quantities in that and the following years at Utica, New York, was an improvement on the Vienna burner in this, that the gallery was so low as to leave a considerable open space under the dome for the reflected light to pass out in a downward direction, and the dome was supported by slender arms; but these arms were attached to the gallery and not to a sleeve fitted on to the wick tube. It differed, therefore, from Reichmann's in these respects: The chimney was supported on a low gallery instead of the dome itself, and the dome was supported by arms attached to this gallery, instead of arms attached to a sleeve on the wick tube. Therefore, with these burners before us, all the invention we can discover in Reichmann's burner is the peculiar mode of supporting his dome by slender arms attached to a sleeve fitted on to the wick tube, and the elevation of the chimney on the outer edge of the dome. The latter peculiarity, as we have seen, is a defect which rendered the burner nearly useless.

We are constrained to hold, therefore, that the Comet burner is not an infringement of Reichmann's original patent or of the invention which is exhibited in his original specification.

It is proper next to inquire as to the bearing of the reissue patent on the question in litigation between the parties. The defenses made by the defendant against this reissue are, first, that it was obtained illegally, wrongfully, and by false pretenses, and because it seeks to claim things of which Reichmann was not the original and first inventor. Secondly, that the original patent itself was void because the only thing in it which Reichmann had any pretense of inventing was anticipated by a man by the name of Michael H. Collins as early as 1843.

The specification of the reissued patent describes the burner of Reichmann substantially as was done in the original patent, being interspersed, however, with observations as to the uses and objects of particular parts, evidently borrowed from subsequent experience and events. The single claim of the original patent is expanded into seven distinct claims.

If they mean anything more than the claim in the original patent, they are void. Being identical with that, they are needlessly multiplied, and by exhibiting a seeming of claims to which Reichmann was not entitled, they are calculated to confuse and mislead. We think it proper to reiterate our disapprobation of these ingenious attempts to expand a simple invention of a distinct device into an all-embracing claim, calculated by its wide generalizations and ambiguous language to discourage further invention in the same department of industry and to cover antecedent inventions. Without deciding that a repetition of substantially the same claim in different words will vitiate a patent, we hold that, where a specification, by ambiguity and a needless multiplication of

nebulous claims, is calculated to deceive and mislead the public, the patent is void.

Our conclusion, therefore, is that the Comet burner is no infringement of Reichmann's reissued patent so far as that patent is valid.

Decree affirmed.
J. H. B. Latrobe and B. R. Curtis for appellants.
C. F. Blake and C. M. Keller for appellee.

United States Circuit Court, Eastern District of Pennsylvania.

ADAMSON vs. DEDRICK.

MCKENNAN, Circuit Judge:
This was a suit in equity, brought by William Adamson against Charles H. Dedrick, under the provisions of section 58 of the Patent Act of 1870, for the purpose of setting aside certain letters patent granted to the defendant June 18, 1872, and alleged in the bill to be for the same invention as the patent granted to complainant January 31, 1865.

The invention, as set forth in defendant's patent, had for its object the economizing of time, labor and material in the manufacture of the soles and heels of boots and shoes, and it consisted in cutting, from the raw hide, pieces approximately of the form required and applying the tanning process to these pieces alone. There was thus saved the additional time, labor and material that otherwise would have been required in tanning the "waste pieces;" the cuttings, being in the condition of rawhide and not of tanned leather, were valuable for glue and other purposes, and it was claimed that the soles and heels produced were of better quality.

The complainant's patent was for precisely the same invention, except that he did not limit himself in the application of this process to the manufacture of boots and shoes: his claim being for—

"Cutting from raw or un-tanned hides or skins, or parts of the same, pieces of the size or about the size and form required for useful articles of tanned leather, and tanning the said pieces after they have been thus cut from the raw or un-tanned hides, as and for the purpose herein set forth."

The bill was filed on the 24th day of July, 1872, and the writ of subpoena issued thereupon was duly served upon the defendant; but the defendant failed to enter an appearance, and thereupon—namely, on the 17th day of October, 1872—the Court, upon motion of C. Howson, Esq., counsel for complainant, granted a decree declaring said patent of Dedrick wholly invalid, inoperative, and void.

Guard Plates for Stoves.

STUART *et al.* vs. SHANTZ *et al.*

MCKENNAN, Circuit Judge:
A guard plate for stoves, consisting of a series of projecting or deflecting shields, united by ornamental tracery, and so arranged as both to conceal the fire pot and to direct the radiant heat downward toward the floor, is essentially different in form, operation, and effect from a fender consisting of a series of hollow frustums of cones so arranged that the hot air passes obliquely upward and outward from the stove.

That the effects claimed to be produced by the patented invention are produced to a useful and valuable extent, an inference from the public recognition of its merits.

This was a suit in equity, brought by David Stuart and Richard Peterson, trading as Stuart, Peterson & Co., against Enos S. Shantz and Oliver B. Keeley, trading as Shantz & Keeley, for an alleged infringement of certain letters patent for guard plates for stoves granted to complainants, as assignees of David Stuart and Alexander Wemyss, on the 18th day of May, 1868.

As the defendants sought to justify their infringement by setting up a license under a patent granted to W. L. McDowell, April 28, 1863, which was earlier than the date of the invention by Stuart and Wemyss, the validity of complainants' patent was directly called in question. The case was thus made to turn upon a comparison of McDowell's invention with that covered by complainants' patent.

Patent sustained.
C. Howson and F. Sheppard, for complainants.
Frank Wolfe, for defendants.

A Perpetual Motion.

A correspondent, Mr. H. R. Birdsall, of Green, New York, sends us a description of a perpetual motion, constructed by an adventurer, which worked so well that he succeeded in obtaining sums of money (\$2,500, \$1,800 and others) from various simpletons, and then left "to secure his European patents. He has not returned, and a visit to his deserted apartment has revealed a hole in the wall and certain surreptitious mechanism by which the perpetual motion was driven. The beautiful device which elicited the subscriptions of the inhabitants of Chenango county was a self-moving pump, and, actuated by some concealed clock springs, it was the delight and wonder of the vicinity.

NEW BOOKS AND PUBLICATIONS.

ENCYCLOPEDIA OF PRACTICAL RECEIPTS AND PROCESSES, containing 6,400 Receipts, embracing Thorough Information, in plain language, applicable to almost every possible Industrial and Domestic Requirement. By William B. Dick. Price \$5. New York: Dick & Fitzgerald.

This is a handsome volume of practical information, partly original and partly collected from the best and most trustworthy sources. Many directions for processes, originally published in our columns, are here collated and compared with other information on the respective subjects. The chief recommendation of a book of this species is the accuracy of the information therein contained; and an investigation of the contents of this encyclopedia has impressed us most favorably as to the value of the processes and recipes, which have been selected with much labor and care. It is a well gotten up book, and is worthy of a place in the library of any home, workshop, factory or laboratory.

Inventions Patented in England by Americans.

(Compiled from the Commissioners of Patents' Journal.)
From October 21 to October 31, 1872, inclusive.
BOOT HEEL.—J. R. Ryerson, Maine.
CIGAR MAKING MACHINE.—G. W. Tanner (of Providence, R. I.), London, Eng.
CUTTING SCREWS.—J. M. Carpenter, Pawtucket, R. I.
ELECTRIC TORCH.—W. W. Batchelder, New York city.
MAKING GUN COTTON.—J. W. and I. S. Hyatt, Albany, N. Y.
MANUFACTURE OF OAKUM, ETC.—T. H. Dunham, Boston, Mass.
MARKING INSTRUMENT.—S. Holman, Philadelphia, Pa.
OBTAINING ANTHRACENE.—J. C. F. Cheever, New York city.
PAPER FILE, ETC.—W. A. Amberg, Chicago, Ill.
PISTON VALVE.—T. Critchlow, Baldwin, Pa.
STEAM GENERATOR.—J. M. Hicks, New York city.
SUBMERGED PUMP.—A. J. Reynolds (of White Plains, N. Y.), London, Eng.
TELEGRAPHING APPARATUS.—D. Craig, New York city.
UMBRELLA, ETC.—A. & I. Herzberg, Philadelphia, Pa.
VISE.—T. Hall, Florence, Mass.

Facts for the Ladies.—Mary J. Clock, New York, has used her Wheeler & Wilson Lock-Stitch Machine fifteen years, averaging, for the first five years, more than \$500, making boys' suits and general sewing. See the new Improvements and Woods' Lock-Stitch Ripper.

Business and Personal.

The Charge for Insertion under this head is One Dollar a Line. If the Notice exceed Four Lines, One Dollar and a Half per Line will be charged.

Patent for Sale, through agents or otherwise. Article for domestic use, of universal application, made by wood-workers. Already tested and of undoubted value. Owner has not time to push it. Address, Useful & Ornamental, Box 5374, P. O., New York.

For Sale, two Patents. Address H. S. Ball, Spartanburg, S. C.

Wanted—A responsible party to manufacture a patent spool holder for Sewing Machines. Machinists who would like to make a contract for the above, can learn particulars by addressing F. A. K., Station A., P. O., New York.

Dobson's Patent Scroll Saws make 1100 strokes per minute. Satisfaction guaranteed. John B. Schenck's Sons, 118 Liberty St., N. Y.

Permanent Photograph Printing, just what is wanted by Manufacturers. Send for Circular to Amer. Photo Relief Printing Co., 1002 Arch St. Philadelphia, Pa. John Carbutt, Sup't.

Valuable Patent Right for Sale. The amusing Toy Attachment for Pianos, illustrated in SCIENTIFIC AMERICAN, October 28th, 1871. Address G. L. Wild & Bro., 420 11th St., Washington, D. C.

Boston Fire! Goodnow & Wightman, 23 Cornhill, were not burned out, and are ready to fill all orders for Tools and Materials. Catalogues were all burned, but will have more in about two weeks.

First Class Steam and Vacuum Gauges, Engine Registers, Davis' Recording Gauges. New York Steam Gauge Co., 46 Cortlandt St., N. Y.

Water Front for Factories, Rope-walks, Lumber-yards, &c.—Lots for Sale or Lease. Blocks of lots on Newtown Creek, near East River, adjoining New York and Brooklyn Cities; prices \$300 to \$1,000; terms easy. Apply to S. R. Schieffelin, No. 15 East 26th St., New York.

Water Wheel Regulators—warranted, or no sale. Address F. B. Bowen, Pawtucket, R. I.

Soluble Glass, Water Glass, Liquid Quartz, Silicates of Soda and Potash for Concrete Cements, Fire and Waterproofing, manufactured by L. & J. W. Feuchtwanger, Chemists, 55 Cedar St., New York.

Oxide of Manganese, highest test, from our own mines, for Steel manufacturing, Patent Dryer, Paints and Glass, at lowest prices, by L. & J. W. Feuchtwanger, 55 Cedar St., New York.

Nickel Salts, double Sulph. and Ammonia, especially manufactured for Nickel Plating, by L. & J. W. Feuchtwanger, Chemists, 55 Cedar St., New York.

Dickinson's Patent Shaped Diamond Carbon Points and Adjustable Holder for dressing emery wheels, grindstones, etc. See Scientific American, July 21 and Nov. 20, 1869. 64 Nassau St., New York.

Wanted—A Small New or Second Hand Iron Planer for light work. Apply to J. H. Killey & Co., Hamilton, Ont.

Four Brick Machines, Combined with Steam Power (Winn's patent), makes 40 M. per day, for sale at a bargain. Address the manufacturers, John Cooper and Co., Mount Vernon, Ohio.

Absolutely the best protection against Fire—Babcock Extinguisher. F. W. Farwell, Secretary, 407 Broadway, New York.

Hydraulic Jacks and Presses—Second Hand Plug Tobacco Machinery. Address E. Lyon, 470 Grand St., New York.

Steel Castings "To Pattern," from ten pounds upward, can be forged and tempered. Address Collins & Co., No. 212 Water St., N. Y.

Heydrick's Traction Engine and Steam Plow, capable of ascending grades of 1 foot in 3 with perfect ease. The Patent Right for the Southern States for sale. Address W. H. Heydrick, Chestnut Hill, Phila.

The Berryman Steam Trap excels all others. The best is always the cheapest. Address I. B. Davis & Co., Hartford, Conn.

Wanted—Copper, Brass, Tea Lead, and Turnings from all parts of the United States and Canada. Duplaine & Reeves, 760 South Broad Street, Philadelphia, Pa.

The Berryman Heater and Regulator for Steam Boilers—No one using Steam Boilers can afford to be without them. I. B. Davis & Co.

T. R. Bailey & Vail, Lockport, N. Y., Manf. Gauge Lathes.

Windmills: Get the best. A. P. Brown & Co., 61 Park Place, N. Y.

The Berryman Manuf. Co. make a specialty of the economy and safety in working Steam Boilers. I. B. Davis & Co., Hartford, Conn.

Williamson's Road Steamer and Steam Plow, with Rubber Tires. Address D. D. Williamson, 32 Broadway, N. Y., or Box 1809.

Peck's Patent Drop Press. For circulars, address the sole manufacturers, Milo, Peck & Co., New Haven, Conn.

Belting as is Belting—Best Philadelphia Oak Tanned. C. W. Army, 301 and 303 Cherry Street, Philadelphia, Pa.

Boynton's Lightning Saws. The genuine \$500 challenge will cut five times as fast as an ax. A six foot cross cut and buck saw, \$6. E. M. Boynton, 80 Beekman Street, New York, Sole Proprietor.

For Steam Fire Engines, address R. G. Gould, Newark, N. J.

Brown's Coal-yard Quarry & Contractors' Apparatus for hoisting and conveying material by iron cable. W. D. Andrews & Bro. 414 Water St., N. Y.

For Solid Wrought-iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

All kinds of Presses and Dies. Bliss & Williams, successors to Mays & Bliss, 118 to 122 Plymouth St., Brooklyn. Send for Catalogue.

Mining, Wrecking, Pumping, Drainage, or Irrigating Machinery, for sale or rent. See advertisement, Andrew's Patent, inside page.

Presses, Dies & all can tools. Ferracute Mch. Wks., Bridgeton, N. J. Also 2-spindle axial Drills, for Castors, Screw and Trunk Pulleys, &c.

Gear Wheels for Models. Illustrated Price List free. Also Materials of all kinds. Goodnow & Wightman, 23 Cornhill, Boston, Mass.

Machinists; Illustrated Catalogue of all kinds of small Tools and Materials sent free. Goodnow & Wightman, 23 Cornhill, Boston, Mass.

Gatling guns, that fire 400 shots per minute, with a range of over 1,000 yards, and which weigh only 125 pounds, are now being made at Colt's Armory, Hartford, Conn.

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A New Machine for boring Pulleys, Gears, Spiders, etc. etc. No limit to capacity. T. R. Bailey & Vail, Lockport, N. Y.

Winans' Boiler Powder, 11 Wall St., New York. Certain cure for incrustations—47 years best in the market.