

According to a recent writer in the London *Times*, the "French dyers have attained such extraordinary skill, that they can color up inferior qualities of silk so as to make them look far better than they are. In some cases they are able to charge the silk with lead and iron, which adds as much as one hundred or one hundred and fifty per cent. to the weight of it! All such artificial additions disappear when the tissue is exposed to any wear, however slight, and sometimes even when it is only exposed to the atmosphere. Let us admire and beware. Never have tissues looked so lovely as now; they charm the eye. But, also, never was beauty more deceitful; and, if our women cannot resist the temptation of lovely tints, let them at least take care to buy new silks from houses which are thoroughly to be trusted." If silk for dresses is open to this grave suspicion, how much more probable is the adulteration of sewing silk which is always sold by weight, although done up in skeins, or on bobbins and reels.

#### DECISIONS OF THE COURTS.

##### United States Circuit Court—Western District of Pennsylvania.

PAPER ROOFING.—JAMES HOWARD vs. ROBERT CHRISTY.

[No. 8, May Term, 1876.—At Law.—Decided November 13, 1876.—Before McKennan, C. J.]

The plaintiff was the first and original inventor of the inventions described and claimed in his patents No. 91,133, June 8, 1869, for method of preparing paper for roofing purposes, and No. 95,689, October 12, 1869, for a machine for carrying out such method. The original application was filed March 1, 1850, rejected April 9, 1850, withdrawn May 4, 1850, and afterwards repeatedly renewed with the allowance of the patent No. 91,133. The plaintiff did not intend to and did not in fact abandon his said invention to the public. Nor was it in public use or on sale with his consent and allowance for two years before his original application.

MCKENNAN, C. J.:

This is an action at law for the infringement of two patents granted to James Howard, the plaintiff, as follows:

1. Patent No. 91,133, dated June 8, 1869, in which the invention claimed is "The method described (in the specification) for preparing paper for roofing purposes—to wit, by passing the paper through liquid asphaltum, heated to that degree which will cause the paper and the asphaltum on it to dry as fast as it is drawn from the reservoir of liquid asphaltum."

2. Patent No. 95,689, dated October 12, 1869, in which the invention claimed is:

"The arrangement of the reservoir A, windlasses B and C, adjustable rollers D, scrapers E and H, and rollers G and J, constructed, arranged, and operating substantially as described in the specification and for the purposes therein set forth."

The parties have stipulated to waive a jury, and that the issues of fact in the case be tried and determined by the court, and the evidence on both sides has been taken in writing and submitted to the court.

Upon the evidence thus submitted the following facts are found:

1. The inventions described and claimed in said patents are novel and useful.

2. The plaintiff was the first and original inventor thereof, and the date of his invention is referable to the date of his original application for a patent—to wit, the sixth of December, 1849.

3. This application was filed in the Patent Office March 1, 1850, accompanied by a specification and by a model on March 5, 1850, was rejected April 9, 1850, and was withdrawn May 4, 1850.

4. It was afterwards repeatedly renewed, (when does not appear,) and resulted in the allowance of the patent aforesaid.

5. During the interval between the date of his application and the allowance of the patent, the plaintiff did not intend to, and did not in point of fact, abandon his said invention to the public.

6. The said inventions were not in public use or on sale with his consent and allowance of the plaintiff for a period of two years before his original application for a patent.

7. The defendant has practised the method described and claimed in Letters Patent No. 91,133 on a machine of similar construction to that described in Letters Patent No. 95,689, and is, therefore, an infringer.

These findings embraced all the material issues of fact raised by the pleadings.

Several questions of law have been suggested touching the alleged defectiveness of the specifications, and the presumptive abandonment of the invention from delay in the procurement of patents, but as the objections to the plaintiff's title on these grounds have no warrant in the well-settled principles of the law of patents it is only necessary to say that they are unsustainable.

Upon the whole case the court is of the opinion that the plaintiff is entitled to recover, and, as the damages have been assessed by stipulation at \$300, judgment with interest, to be entered upon the findings in favor of the plaintiff for that sum.

James J. Johnston and George H. Christy, for plaintiff.

Joseph M. Gazzam, for defendant.

#### NEW BOOKS AND PUBLICATIONS.

**BRYANT'S BOOK-KEEPING:** a Treatise on the Science of Accounts, Elementary and Practical, containing a Thorough Explanation of the Principles and Practice of Double Entry Book-Keeping, adapted to the Use of Universities, Business Colleges, etc. Price \$3. Buffalo, N. Y.: Published by the Author.

Mr. Bryant's long experience as a teacher of the science of commercial accounts has enabled him to compile a work of the highest value for simplicity and practical value. The book is a thorough and complete treatise, written with clearness and illustrated with numerous specimen pages of account books. We recommend it to all young men desirous of acquiring a knowledge of the useful and indeed indispensable art of book-keeping.

**RURAL HYDRAULICS, A PRACTICAL TREATISE ON RURAL HOUSEHOLD WATER SUPPLY:** giving a full Description of Springs and Wells, Pumps, Hydraulics, etc. By W. W. Grier. Price 75 cents, free by mail. Philadelphia, Pa.: Henry Carey Baird & Co., 810 Walnut street.

A practical little work on an important subject, free from technical and abstruse phraseology.

**NOTES ON LIFE INSURANCE. WITH APPENDIX.** By Gustavus W. Smith, late Insurance Commissioner of Kentucky. Price \$2.00. New York city: D. Van Nostrand, 23 Murray street.

The subject of this volume is an inexplicable mystery to many, and we think that the book will meet a great necessity. The author is evidently a gentleman of great skill and knowledge; and the wise principles he lays down so clearly will enable persons of limited education to acquire sufficient knowledge to judge for themselves as to the trustworthiness of the multitude of insurance companies which are now claiming the confidence of the public.

**ELEMENTARY ARCHITECTURAL DRAWING.** Edited by Charles Babcock, Professor of Architecture in the Cornell University, Ithaca, N. Y. Nos. 1 to 8. New York city: D. Appleton & Co., 549 and 551 Broadway.

Messrs. Appleton are now publishing Krusi's courses of examples in free hand and mechanical drawing. Six series are announced, each edited by a professor of well known ability and reputation. The eight parts of the architectural series, now before us, comprise an extended course of examples of great variety and excellence, calculated to form the taste as well as train the hand and eye of the student. The occasional use of free hand work in depicting the various building materials is singularly effective and correct.

**THE QUARTERLY JOURNAL OF INEBRIETY.** Published under the auspices of the American Association for the Cure of Inebriates. T. D. Crochers, M. D., Secretary, Birmingham, N. Y. Subscription \$3.00 per year.

The name of this new comer in the field of periodicals is rather puzzling. By a parity of reasoning, a paper printed by a prison association might be called a journal of petty larceny—or bigamy—which would startle people. This aside, the new magazine is an excellent and useful publication, and we have no doubt, will do great good in disseminating correct and scientific views regarding the sad disease of drunkenness and its best mode of cure. The first number contains Dr. Beard's excellent address on the Causes of Inebriety, which we have already reviewed in full. There are besides the proceedings of the Association above named, beside clinical notes and other interesting articles.

#### Inventions Patented in England by Americans.

From November 21 to December 21, 1876, inclusive.

AERATING CHURN.—T. Simmons, Hartford, Conn.  
AIR PUMP.—W. F. Garrison, Brooklyn, N. Y.  
ARTIFICIAL STONE.—L. L. Leathers, Oakland, Cal.  
BOX COVER, ETC.—W. L. Hubbell, New York city.  
CAR BRAKE, ETC.—L. O. Rost, East Minneapolis, Minn.  
CAR COUPLING.—H. G. Russell et al., Lincoln, Ill.  
CLEANSING CARPETS.—G. S. Norris (of Baltimore, Md.), London, England.  
CLEANSING FABRICS.—W. Maynard, New York city.  
EMBROIDERER.—A. Mason, New York city.  
EXPLOSIVE.—E. Judson, San Francisco, Cal.  
FLEXIBLE TUBING.—H. Wakeman, New York city.  
FRYING PAN.—J. E. Bardell et al., New York city.  
GRAINING WOOD.—J. R. Cross, Cleveland, Ohio.  
HARVESTER RAKE.—W. A. Wood, Albany, N. Y.  
INESTAND BASE, ETC.—Rosenfeld & Co., New York city.  
LAMP WICK, ETC.—H. C. Scott, Clinton, Iowa.  
LOADING HAY, ETC.—J. W. Foust et al., Meadville, Pa.  
LOCK AND KEY.—M. Runkel, New York city.  
MAKING ICE, ETC.—C. L. Riker, New York city.  
MAKING NUT BLANKS.—S. S. Townsend, Philadelphia, Pa.  
MAKING OZONE, ETC.—H. Milsom, Buffalo, N. Y.  
MAKING SCREWS.—American Screw Company, Providence, R. I.  
MAKING TUBES.—American Tube Works, Boston, Mass.  
NAIL FEEDING DEVICE.—W. H. Field, Launton, Mass.  
PIPE COUPLING.—L. Richardson, Brooklyn, N. Y.  
PRESERVING MEAT, ETC.—A. Montgomery, New York city.  
RAILROAD TIE.—D. S. Whittenhall, Chicago, Ill.  
REDUCING ORES.—T. S. Blair, Pittsburgh, Pa.  
REVERSING VALVE.—H. S. Maxim, New York city.  
SCOURING GRAIN, ETC.—W. P. Clifford, Elmora, Ill.  
SCOURING HIDES, ETC.—B. F. Larrabee, Lynn, Mass.  
SPRING MATTRESS.—Howe Spring Bed Company, New York city.  
SPRING MOTOR.—R. Rhett, Baltimore, Md.  
STOWING COTTON, ETC.—M. J. Walsh, New York city.  
STRAIGHTENING WIRE, ETC.—W. H. Paine, Brooklyn, N. Y.  
TUYERE, ETC.—A. J. Haws, Johnstown, Pa.  
UMBRELLA, ETC.—A. A. Valentine et al., New York city.  
UNLOADING GRAIN.—G. Milsom, Buffalo, N. Y.  
VALVE.—N. C. Locke et al., Salem, Mass.  
VALVE, ETC.—E. Purvis, New York city.  
VENTILATION, ETC.—J. S. Linsley, New York city.  
WATER GAUGE, ETC.—W. Andrews, Lisbon, Me.

#### Recent American and Foreign Patents.

##### NEW HOUSEHOLD INVENTIONS.

###### IMPROVED CENTER SLIDING GASALIER.

Samuel B. H. Vance, New York city, assignor to Mitchell, Vance & Co., of same place.—By suitable construction, as the center light is drawn down, a cord unwinds from a drum L, which turns the said drum, and coils up a spring. The tension of the spring and the weights of the square tube and its attachments so nearly balance each other that the center light will be sustained in any position into which it may be adjusted, but may be raised and lowered with ease.

###### IMPROVED DESK.

Ernest N. Döring, New York city.—When the lid of the table is thrown back pigeon holes attached thereto are exposed. To the lowest pigeon hole a desk leaf is hinged which when the lid is opened falls into an inclined position, ready for use.

###### IMPROVED LAMP.

David Dickson, Raglan, Ontario, Canada.—The object of this invention is to do away with that portion of the chimney which is most liable to fracture from unequal expansion, and substitute therefor a metallic top, which may also answer the purpose of a reflector. The top shuts a small distance over the top of the glass cylinder, and is retained in place by the spiral springs, fastened to tubes which support the wick tube.

###### IMPROVED GAS OVEN OR SUMMER RANGE.

Benjamin Shourds, Philadelphia, Pa.—This embodies improvements in that class of ovens or summer ranges commonly known as gas ovens, because the draught, coal gas, etc., from the fire can be caused to pass through the oven when the lids in the bottom plate thereof are removed. The side thirds of the top plate are inclined at an angle of about 45°, and its central third is flat, and is provided with an angular brick work. Upright openings and dampers formed in the upper parts of the side plates of a summer range, above the lower edges of the inclined side parts of the top plate; and a flue is formed upon the rear plate. Dampers are provided in connection with an opening formed in the upper part of the back plate.

##### NEW AGRICULTURAL INVENTIONS.

###### IMPROVED CULTIVATOR.

William B. Sturgis, Shelbyville, Ill.—The crank axles are secured in place adjustably in a bar, that is arched, so that the machine may be drawn over tall plants. There are also new devices to enable the plow to be readily guided, to prevent the standard being broken when striking an obstruction and also to support the plows away from the ground when turning around and passing from place to place.

###### IMPROVED GUIDE FOR BUILDING RICKS AND STACKS.

John Murdock and Henry Murdock, Poseyville, Ind.—This relates mainly to gates which travel on a vertical post being hoisted as the stack is built up to them by means of a winchlass. They are so constructed as to contract as the top of the stack is reached, and when the latter is nearly complete they may be altogether removed.

##### NEW MISCELLANEOUS INVENTIONS.

###### IMPROVED PROCESS OF PREPARING METAL SURFACES FOR PRINTING UPON.

Joseph T. Comross, New York city.—The object of this invention is to form such a surface upon metal plates that it may be printed upon direct, without any transfer process, and which will enable the plates, after being printed upon, to be struck up with dies, and otherwise manipulated without cracking, chipping, or otherwise injuring said surface. A mixture of pale boiled oil, Benguela varnish, turpentine, and white lead ground in oil is first applied hot. The plates are then placed in an oven heated to 125° Fahr., after which they are powdered with a mixture of magnesia and soap stone, and are then ready to be printed upon. We have seen some of the most beautiful samples of metal card printing in colors, by this process that have ever been executed. The work closely resembles chromo picture printing in the perfection in which the colors are laid.

###### IMPROVED QUILTING FRAME.

Ira M. Hope, Morocco, Ind.—The quilt is fastened to muslin strips attached to rollers, at two sides, and secured to bars at the other sides by cords. As the quilt is wound on the rollers, the cords stretching it to bars are disconnected. When thus wound sufficiently the bars are altogether detached, and the rollers are put into benches and held by ratchet wheels and pawls to stretch the quilt between them, while the hooks stretch it in the other direction.

###### IMPROVED WATCH PROTECTOR.

Henry A. Rosenthal, Brooklyn, N. Y.—This is an improved device for connecting a watchchain and watch with each other, so constructed that it may be set to prevent the watch from being withdrawn from the watch pocket by a thief. In a short tube, the upper end of which is closed, and the lower end of which is flared, is fitted a block, which slides up and down within it. The movement of the block is limited by a screw, inserted in it,

and which passes through a longitudinal slot, formed in the side of the tube. The slot at its upper end is extended at right angles with the length of the tube, so that by turning the tube so as to bring the screw into the lateral arm of the slot the block will be locked in the upper end of the said tube. When the tube has been pushed down to the cap and turned so as to bring the screw into the lateral arm of the slot the watch may be drawn from the pocket as readily as if the device were not there; but to guard against having the watch drawn from the pocket by a thief, the tube is turned to bring the screw into the upper end of the longitudinal arm of the slot; then, if the watchchain is drawn upon, the tube is drawn upward upon the block, and springs force four or more or less hooks outward, which catch upon the sides of the pocket and prevent the watch from being withdrawn from said pocket.

##### NEW MECHANICAL AND ENGINEERING INVENTIONS.

###### IMPROVED WATER WHEEL.

Lewis A. Struble, Salt River, Mich.—This waterwheel is provided with hinged buckets supported radially to the axis of the hub by projections that extend beyond their pivots and rest on the revolving hub. The buckets are claimed to work always in a position radial to the hub, and thus to secure the greatest effect from the water.

###### IMPROVED MIDDINGS SEPARATOR.

John J. Haller, Ripley, N. Y., assignor to himself and John W. Baker, of same place.—In connection with the beating and screening cylinder a fan blower is arranged with air inlets at its head and a narrow longitudinal slit at the side for spreading the blast in a thin sheet. Adjustable deflectors and a divider are provided, the latter serving to keep the flour that falls from the screen separate from the lighter particles that fall to the front of the case.

###### IMPROVED COMPENSATING PENDULUM.

Eben M. Corwin, Barry, Ill.—In this invention the variations of the length of the pendulum wire, due to different temperatures, are compensated by placing between the ball and its supporting and regulating nut a piece of hard rubber, which, being secured to the ball by a screw at one end, and resting upon the regulating nut at the other, keeps the center of gravity of the ball at a uniform distance from the point of suspension.

###### IMPROVED GAS METER.

Julian I. Alexander, Baltimore, Md., administrator of John H. Alexander, deceased.—This is an improved device that is claimed to measure the gas accurately as it passes from the service pipe to the pipe leading to the burners. It consists in an improved gas meter formed by the combination of a box, a tubular arm wheel, a spindle, and a register. In the rear side of the outer end of each of the arms of the wheel is formed a small hole, through which the gas escapes, and, by its reaction against the gas in the box, revolves the wheel, the number of revolutions of said wheel being recorded by the register, so that by calculating the quantity of gas that escapes at each revolution, and recording the number of revolutions of said wheel, the quantity of gas that passes through the machine can be accurately known. It is very simple in construction.

###### IMPROVED METAL CAR FRAME.

Frederick J. Kimball, Philadelphia, Pa.—This is a novel and simple construction of a car frame of channel bars, angle bars, iron and wood corner pieces, and wood beams, whereby great strength is secured without excessive weight, and with economy in the cost. The side and end pieces of the bed frame are of channel iron, with the channel arranged outside and filled with wood, except at the corners, where metal knee filling pieces are used to make strong joints by riveting or bolting the bars to them. The back of one of the bars is also extended along the back of the other, and secured to it. Through these metal corner pieces longitudinal and transverse tension rods or bolts are arranged, for straining the frame up tight. The wood filling serves for nailing the siding to, as well as for stiffening the channel bars. Other channel bars are slightly curved outward, extending through the middle portion of the bed frame from end to end, and are attached thereto by flanges and riveted to the end pieces, and supported at suitable intervals. The latter bars are curved in a horizontal plane, because the shock which occurs when the cars come together comes mainly upon the middle stringers, and when the strain is too great for the rods that pass through the thimbles the said bars will readily spread, and can be afterward easily drawn back into place. If not curved, they might bend upward or downward, so that they could not be straightened without removal from the car frame.

###### IMPROVED AUTOMATIC BRAKE.

Hugh McCalip, Hope, Bartholomew county, assignor to himself and Norton R. Champion, Shelbyville, Ind.—This invention is so constructed as to be applied by the momentum of the cars as they run together when the traction power is checked, and to be withdrawn as the traction power is again applied. By pressing on the bumper the brakes will be applied on one set of wheels as long as the bumper meets with resistance on the forward motion. During this time the opposite brake wheels are held firmly in the straps, but motionless, while the axle revolves in them, the pawls being off. When it is desired to change the direction of the car, the inner end of a push bar is changed from one lever to the other. When the pulling power of the engine is checked, the brakes are automatically applied to one set of wheels and the train is stopped. The reversal of the engine now will produce no effect upon the position of the brakes; but the change in the direction of the rotation of the axle releases the pawls from one set of wheels and causes them to take hold on the opposite ones, when the train may be backed without further obstruction, the brakes remaining open as long as the pushing continues. When the pushing power of the engine is checked, the momentum carries the train away from it and the slack motion of bumper applies the brakes to the opposite wheels, thus braking backward as well as forward.

###### IMPROVED RADIAL DRILLING MACHINE.

Alfred Box, Philadelphia, Penn.—This is a contrivance of the devices comprising a radial drill, whereby the power is transmitted to the drill in whatever position it may occupy by a belt in the place of the bevel gears and shafting heretofore employed.

###### IMPROVED BALING PRESS.

William B. Duncan, Huntington, Tenn., assignor to himself and A. F. Estes, of same place.—This is a new press for baling cotton, hay, and other articles requiring to be compressed into bales. The improvements are mainly in the construction of a novel pawl and ratchet mechanism in connection with the follower.

###### IMPROVED COUPON NIPPER AND TICKET PUNCH.

Frank Walker, Santa Barbara, Cal.—The operation of this device is as follows: A coupon is placed in an aperture when a motion of the handle detaches it. It is then forced against fingers, causing a tumbler to turn until the coupon slips from between the fingers into a receptacle. The tumbler being liberated, a spring returns it to its normal position, at the same time causing a hammer to strike the bell.

###### IMPROVED OILER FOR CAMS.

John Henry Beal, Canton, Mass.—This consists in the combination of a piece of oil-saturated felt, and its spring holder, with a cam. The elasticity of the spring holds the saturated felt always pressed against the cam, and thus keeps the said cam constantly oiled.

###### IMPROVED COMBINED ANVIL AND VISE.

William E. Caneby, Rochester, Minn.—This is a combined anvil and vise for the use of harness makers, tinners, farmers, and others. The vise is secured to the anvil between projecting side guides by a fastening screw, and bears, by a lateral shoulder, on the top of the anvil.