

DECISIONS OF THE COURTS.

United States Circuit Court—District of Rhode Island.
THE ATTORNEY GENERAL, UPON THE RELATION OF GEORGE V. HECKER *vs.*
THE KUMFORD CHEMICAL WORKS *et al.*

[In Equity.—Before Shepley and Knowles, JJ.—Decided May 15, 1876.]

This was a proceeding in equity in the name of "George H. Williams as the Attorney General, upon relation of Hecker *vs.* The Kumford Chemical Works *et al.*" the prayer of the bill being to declare void and to cancel and annul certain letters patent, and to enjoin defendants from prosecuting any suit at law or equity for alleged infringements of the same.

A patent for a useful invention is not, under the laws of the United States, a monopoly, in the old sense of the common law.

It more nearly resembles a contract which, under the authority conferred by the constitution, Congress authorizes to be entered into between the Government and the inventor, securing to him, for a limited time, the exclusive enjoyment of the practice of his invention in consideration of the disclosure of his secret to the public, and his relinquishment of his invention to the public at the end of the term.

The practice that obtains in England as to the mode or forms of procedure for the cancellation and annulling letters patent by *scire facias* does not obtain in this country.

No statute of the United States confers or recognizes the existence of any such right, nor can any precedent be found for the suing out of a writ of *scire facias*, or the bringing of a bill in equity to repeal or cancel the patent by the Attorney General, in the name and behalf of the United States, either with or without a relator.

The jurisdiction conferred by the acts of 1790 and 1793, upon the Federal courts to repeal a patent, and which without express grant it is believed did not inhere in these courts, is nowhere conferred by the acts of 1836 or 1870, or in the Revised Statutes of 1874.

The decisions in the Federal courts sustaining proceedings in equity to vacate letters patent, granting lands obtained by fraud, furnish no precedent in cases of letters patent for inventions.

"The Attorney General of the United States," as he is Attorney General, has no authority as such and in his own name to file an information, or commence proceedings by bill in equity.

If the court has jurisdiction in cases of this character, the information should be in the name and behalf of the United States, and should be filed by the attorney of the United States, in the district in which the information is filed.

Any other mode of procedure (unless authority is expressly conferred by statute) is neither authorized by law, sanctioned by any precedent, nor supported by the authority of any judicial decision.

[*Cum gratia* Broome and Charles F. Blake for the informant.
William M. Edwards, Clarence A. Reed, and Charles S. Bradley for the defendants.]

Supreme Court of the District of Columbia.

HENRIETTA H. COLE *vs.* JOHN W. KENNEDY AND JOHN K. KENDALL.

[In Equity, No. 1,603, Docket 15.—Before Wylie, J.]

WYLIE, J.:

The relator's letters patent No. 3,319, dated April 25, 1871, declared good and valid, said patent being for improvements in filing machines granted to H. H. Cole.

The "Knox," "Peeless," and "Crown" filing machines are infringements of the Cole patent, as relator claims.
[Charles S. Whitman, for complainant.
R. Ross Perry, for defendant.]

United States Circuit Court—Northern District of New York.

GEORGE S. NEWELL *et al.* *vs.* GEORGE WEST *et al.*

Where an inventor and patentee entered into a written contract with one of the part owners of the patent, to procure, if possible, an extension of the same, and, under such contract, received a valuable consideration, and, after his death, his wife, as executrix, procured such extension, and conveyed by assignment, duly recorded, such extended patent to the assignees of said part owner, who was a party to the original contract with the inventor and patentee, and who held by Wallace, J., that, upon the record of the trust as executrix, and the appointment of an administrator with the will annexed, such administrator could not make a legal assignment of such extended patent so as to vest the same in another and different party than the assignee of the executrix.

[The complainants having filed their bill for a perpetual injunction, and for an account, alleging the infringement by defendant of the extended letters patent, in which complainants own the exclusive right for the State of New York, the defendants plead thereto that the Union Paper Bag Machine Company is the owner of the patent in exclusion of the complainants. Complainants having taken issue by replication to the plea, the cause now comes on to be heard upon the pleadings and proofs.]
[Marcus F. Norton, for complainants.
Horace Runney, for defendants.]

United States Circuit Court—Southern District of New York.

HENRY L. DALTON *et al.* *vs.* CHARLES NELSON *et al.*—IN EQUITY.—JANUARY 28, 1876.

Letters patent for an improved steam gage cock were issued to Albert Bissée, September 18, 1853, were extended for seven years from September 18, 1861, and were renewed on June 14, 1870, to Oscar T. Earle, assignee of Bissée.

SHIPMAN, J.:

This is a bill in equity, in favor of the owners of the relator's letters patent, to restrain the defendants from an alleged infringement, and for an account. Infringement and the novelty of the invention are denied by the answer.

The alleged invention, which is an improvement on steam gage cocks, was made by Mr. Bissée in 1853, and consisted in the language of the specification: "First, in making one of the surfaces that meet to close the water way or steam passage of a piece of vulcanized rubber, which is protected from spreading or coming in contact with metal in such manner that but little more than its bearing or acting surface is exposed; and secondly, in making the other surface, which is of metal, in the form of a ring, so that the rubber may be compressed, by the same power, more forcibly than if the metal surface were equal in area to that of the rubber."

Prior to this invention, the opposing surfaces of steam gage cocks had been made of brass or other metal, which was speedily roughened or worn by the dirt or grit in the water. To remedy this difficulty, one of the surfaces was sometimes faced with leather or lead; but the steam soon destroyed the leather, and corroded or cut away the surface of the lead. The joints leaked, and the cocks soon needed repair, whatever material was employed. The use of vulcanized rubber as one of the bearing surfaces overcame these difficulties. Its advantages are briefly explained by one of the defendants' witnesses, to have been that, "being a rubber or elastic substance, it wouldn't wear and grind, as metal surfaces would; by its elasticity it pressed upon the seat and easily made a tight joint; it has always answered just as well in hot water as cold, while metal surfaces and ground joints in steam-cocks will not stand at all in hot water." The Bissée cock has proved to be of great value, it has superseded the use of pre-existing devices, has met with large sales, and "has answered its purposes perfectly."

The main question in the case is as to the validity of the patent. The defendants have introduced a number of devices, which are claimed to have anticipated the plaintiff's patent. Of these, the valve patented by Albert Fuller was clearly an anticipation. In neither one of the other prior inventions or prior publications was vulcanized rubber used as one of the surfaces to close the steam passage. This fact raises the question which was considered by counsel to be the principal one in the case, namely: Is the substitution of vulcanized rubber for cork, leather, or soft metal, by which substitution a substantially perfect gage cock was first produced, a subject-matter patentable?

The difficulty which was to be overcome by the patentee was to make a steam gage cock which would not readily leak, and which would resist the action of steam. The result which he attained was the invention of a durable gage cock, which remained tight under various pressures and different degrees of heat, and which did not get out of repair. This result was accomplished by the discovery of the fact that highly vulcanized rubber, in consequence of its elasticity, would not be ground and changed by water containing dirt or grit, and in consequence of its durability and non-corrodible properties, would successfully endure and withstand the power of steam. In the year 1853, the peculiar adaptability of hard rubber to the varied mechanical purposes to which it has since been applied was much less understood than it is at the present time. The invention consisted in the practical application of the discovery by such mechanical means that an efficient gage cock was produced.

An attempt was made to show that this invention had been anticipated by the application of sheets of vulcanized rubber to the edges of the door or plate of manhole of steam engines, and also upon the delivery valves of engines; but the analogy between the edge of a gasket, upon the plate of a manhole, or upon a delivery valve, and one of the opposing surfaces of a compression steam gage cock, which is necessarily opened and closed at frequent recurring intervals, and which should be so constructed as not to become leaky from the constant use to which it is subjected, is so remote that a rubber gasket cannot with propriety be considered an anticipation of Bissée's invention. The remark of Judge Coltman in *Walton vs. Potter* (4 Scott's N. C. 95), seems to be applicable to this branch of the case.

It appears to me that if the plaintiff's invention is a very useful application and adaptation of a substance, the properties and qualities of which, for the purpose, had never been known before, and, therefore, that it was properly the subject of a patent.

Again, the Bissée invention comes within the principle which was enunciated in *Hicks vs. Kelley* (18 Wall, 673):

"The use of one material instead of another in constructing a known machine is, in most cases, so obviously a matter of mere mechanical judgment, and not of invention, that it cannot be called an invention, unless some new and useful result, an increase of efficiency, or a decided saving in the operation, is clearly attained."

Here the substitution does not merely produce the same result in the same way, but produces a new result, differing from the former one so materially that it might almost be said that the difference is one of kind, and not of degree. The improvement was of such marked character that the inference is that the new device must have been the result of invention, thought, experience, and skill, rather than the result of mere mechanical judgment.

The defendant's device is an imitation of the plaintiff's gage cock, except that, in lieu of the vulcanized rubber, the defendant uses the material which was patented by relator's letters patent issued to Nathaniel Jenkins August 3, 1854; the claim of the patent is for an elastic pack composed of at least four tenths of finely pulverized refractory earthy or stony material, intimately mingled with and held together by rubber, prepared for vulcanizing and then vulcanized, as and for the purpose described.

The defendants have taken the principle or idea of the Bissée invention, which was the production of a tight steam gage cock, by the use of vulcanized rubber, one of the bearing surfaces, and the same material is used in the same form and shape in which it appears in the Bissée invention. It is true that other materials are intermingled with the vulcanized rubber, forming one compound, but the vulcanized rubber of Bissée is none the less

used because other materials are fused with it. The infringement is manifest.

Let there be a decree for an injunction and an account.
[S. J. Gordon for plaintiffs.
Thomas W. Clarke, for defendants.]

Recent American and Foreign Patents.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED PRINTER'S GALLEY.

Henry E. Hanna, Pittsfield, Ill.—This invention is a galley, by which the type may be locked in an instant without sidesticks, quoins, and chase, for taking proofs, and unlocked for making corrections without scaling off type. It consists of an adjustable cross bar that is applied by hinged or buckle joints to the side of the galley, to be readily folded out of the way or locked to the type. When it is desired to lock the type for taking a proof, the locking bar is brought against the type, and the knuckle or hinged frame lowered and extended to its full width, giving a firm and complete locking of the type at a saving of time and labor. As the lower part of the locking bar is first withdrawn from the bottom of the types, while the bar still holds the upper part of the type, the locking bar may be easily released without producing any scaling off of types, which forms an objectionable feature of the locking attachment of galleys heretofore in use.

IMPROVED STOVE PIPE JOINT.

James L. Loring, Dallas center, Iowa, assignor to himself, Fortunatus Hubbard, and Judson Purinton, of same place.—This is an improved stove pipe joint that forms a solid and firm connection of the pipes, so that they cannot be pulled apart or pushed together, while being readily disconnected when required. It consists of recesses at the end of one pipe, in connection with rivets of the other pipe end, the rivets having broad interior heads, and shanks nearly of the width of the slots.

IMPROVED BALANCED SLIDE VALVE.

John Edward Watson, Louisville, Ky.—This invention consists in the improvement of balanced slide valves, by combining a piston, diaphragm, and valve with a seat having port, passages, and channels leading from steam inlet. The diaphragm takes the upward pressure of the steam, and has sufficient movement to allow the valve to be pressed by the down pressure in said chamber steam-tight on the seat. The area of the chamber is sufficiently larger than that on the under side of the valve subject to lifting pressure to keep the valve tight.

IMPROVED WEIGH SCALE.

Alanson Carpenter, Angola, Ind., assignor to himself and Joseph Smith, same place.—This invention relates to an improved weighing scale for determining the weights of substances, and also the pressure of steam in a boiler; and it consists of a sliding post connected by a bottom crosshead and lever rods with weighted elbow levers having outer index arms, swinging in a suitable casing or box.

IMPROVED SELF-CLOSING HATCHWAY.

Samuel W. Bell, Burgettstown, Pa.—This is a hatchway door. It is opened automatically by a tapering elevator, made in sections, hinged together and folding, and closed by springs or weights, in the manner specified.

IMPROVED MANUFACTURE OF BOOT AND SHOE SOLES, ETC., AND IMPROVED SCREW-THREADED RAWHIDE SHOE PEGS.

George V. Sheffield, New York city, assignor to Sheffield Screw Driving Machine Company, same place.—The first invention consists in the method of uniting the soles of boots and shoes, or the parts to be joined together, by means of threaded screws made of petrified rawhide, or other analogous fibrous material, which said screws are screwed into corresponding screw-tapped holes in the parts to be united. The second invention relates to the manufacture of the threaded pegs, in which the skins or hides, as they come from the animals, are spread on boards placed over a bed of common salt in a retort, and subjected them to the action of the salt heated to about 90° for a sufficient length of time to petrify and harden them. Practicable screws are made from the strings cut from the hides, the width being about the same as the thickness of the skin, so as to make them square.

IMPROVED CAR COUPLING.

George W. Johnson, Princeton, assignor of one half his right to Francis W. Hauss, Gibson county, Ind.—This consists of a hook and a catch on each bar, so contrived as to form a double coupler, which connects self-acting, and is disconnected by a chain or cord from above, or from the side, in such manner as to avoid going between the cars.

IMPROVED COMPENSATING PENDULUM.

Fritz Willman, La Salle, Ill.—The pendulum ball is suspended by two rods of metal, of different powers of expansion and contraction, and a lever, the lever being fixed in the rod of least expansion for a fulcrum, and having the more expansible rod connected to one end, and the ball to the other end, so that when the rods expand the ball will be raised, and it will be lowered when they contract. The amount of variation or compensation is varied by shifting the lever along the rod in which it is suspended.

IMPROVED FIRE SHIELD.

William Murray, Vicksburg, Miss.—This invention consists of coupling joints and pipes for quickly erecting frames for scaffolds, and for supporting plates to protect firemen from the heat of a burning building, the object being to enable them to approach closer to a burning building, and to afford protection to other buildings by being set up between them and the buildings on fire.

IMPROVED LOCK AND KEY.

John J. Portuguese, New York city.—This is an improved lock for safes, doors, and other places where two parts are to be secured together, so constructed that it cannot be opened by any other instrument than the key made expressly for it. The mechanism, which embodies several novel and ingenious devices, cannot be explained without the aid of drawings.

IMPROVED SMOKE JACK.

John B. Deeds and David A. Bridwell, Terre Haute, Ind.—This consists of a flue or jack with movable and balanced hood and outside ventilators. The movable hood adjusts itself automatically by a surrounding conical rim, with drip holes, to the top of the locomotive smoke stack.

IMPROVED HOSE PIPE COUPLING.

Thomas Loftus, Sacramento, Cal., assignor of one half his right to Benjamin Bullard, Jr., same place.—The coupling is formed by an exteriorly threaded and flanged tube, and two interiorly threaded tubes, which screw on the former and clamp the hose.

IMPROVED EARTH AUGER.

Datus N. Root, Parkersburg, Iowa, assignor to Chaney F. Owen, same place.—This consists of a bucket and bits contrived in three equal sections, by which the auger works faster; and by taking out one of the boring bits and bucket sections and substituting a pronged bit of peculiar form, with a shorter bucket section, bowlders of larger size may be taken out than can be with other augers.

NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

IMPROVED FIRE ALARM AND EXTINGUISHER.

Thomas F. Nevins and John W. Smith, Brooklyn, N. Y.—This invention consists in making water flow through a water wheel whose movement acts upon a bell, whereby an alarm is sounded automatically the moment the water commences to flow. As soon as a fire breaks out and the flame licks a cord, the latter burns and breaks, and a spring throws back the bolt and lets a weight fall. The said weight being attached by a chain to the end of the stopcock arm, opens the stopcock and allows the water to pass to the water wheel.

IMPROVED MICROSCOPE.

George Wale, Fairview, N. J.—This is an improved microscope stand, by which the object glass may be adjusted to greater or less distance from the object without being disturbed in the least, or thrown out of its accurate vertical position, and by which the greater or lesser intensity of the light may be regulated and set to various conditions of the object. The invention consists, first, of the mechanism for the minute vertical adjustment of the object glass; secondly, of the adjustable ring frame and socket; and lastly, of the variable light-admitting aperture of the same.

IMPROVED PHOTOGRAPHIC PLATE.

Frederick H. Powell and Philip Lehnen, Auburn, N. Y.—This consists in an improved plate for photographs or signs made of waterproof paper, having a coat of paint on the back, and one or more coats of baking japan or varnish on the face, and hardened. The process of preparing the paper for photograph and sign plates consists in first waterproofing the paper, then coating the back with a paint, and baking it in an oven till hard, then coating the face with one or more layers of baking japan or varnish, and then baking such final coat to hardness to obtain the required finish.

IMPROVED BURIAL APPARATUS.

Lewis H. Shuler, Crawfordsville, Ind.—A deep, strong box, with closed top, open side, and dumping bottom, is mounted on truck wheels to move sidewise. The bottom may be opened and closed by a crank shaft. Cranes are provided for lowering the coffin by chains and a crank shaft, and are pivoted to the ends of the box inside of the opening to swing out on the grave, and to close in for protection when the box is shut up. The shaft has a ratchet and pawl for holding the coffin when required. After the coffin is lowered, the box is moved along over it on the track for dumping the earth in.

IMPROVED VOLTAIC BELT.

Alexander M. Dye, Elkhart City, Ill.—The plates are secured to a felt band by clenching them over the edges and also by a band bottom fastening.

IMPROVED WEIGH SCALES.

Robert H. C. Shea, Uniontown, Ky.—These scales are adapted for being carried by physicians and druggists in portable folded state, in the pocket. They are made of a longer weighing beam and a shorter tray beam, hinged together and working on a fulcrum or flange bent down from the tray or scale beam. The weighing beam is longitudinally slotted for the sliding weight, having lateral index hands and a guide pin, and provided with pronged ends for attaching smaller weights.

IMPROVED COMBINED MEASURE AND FUNNEL.

Frank H. Winston, Evansville, Wis.—This invention consists in a crooked stopper rod, by which the stopper may be held while the liquid is running from the measure.

IMPROVED BREECH-LOADING FIRE ARM.

John A. Heckenbach, Kenosha, Wis.—This consists of a movable plate in front of the breech block, with a device for tightening it up in a simple way, by means of which the plate can be readily taken off for making smooth and bright with emery paper, and can be tightened up when the parts become loose from wear, without expense, and also without tools. The plate also allows of using stronger pins on which the hammer strikes.

IMPROVED BATH FOR TREATING IRON.

Christian Ziegenheim, Allegheny, Pa.—This is a compound for treating iron preparatory to uniting it with steel by casting the steel on the iron, consisting of sal soda, caustic soda, borax, lime, and water.

IMPROVED ICE CREAM FREEZER.

Edward G. Wheeler, Mobile, Ala.—This consists of an ice can surrounding the cream basket, both of which are inside of an outer can, and suspended from the handles of the beater shaft, so as to revolve with it, being supported on its pivot so as to turn easily. The device is so connected to the beater shaft that, although only partially filled with ice, it can be made to freeze a full can of cream by shifting it up along the cream bucket, after freezing the lower portion.

IMPROVED PROJECTILE FOR ORDNANCE.

John G. Butler, New York city.—By means of this invention the sabot of a projectile may be applied in the shape of a comparatively delicate flanged ring, whereby the weight is not only greatly reduced, but much strength is added, since the sabot is secured to the projectile so much nearer to its periphery. A reduction of the distorting effects of the discharge upon the sabot, whereby it is frequently broken, by presenting a greatly reduced area for the operation of these forces, is also gained.

IMPROVED FOUNTAIN PEN.

Henry H. Perkins, Utica, N. Y.—This invention consists of a fountain attachment, bent of one piece of sheet metal, and attached by elongated wings and spring clips to the pen, the ink reservoir being at the under side of the elongated wings.

NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

IMPROVED SASH BALANCE.

James Waddell, Mamaronock, N. Y.—This is an improved sash holder, by which the upper sash may be readily opened and closed and retained in any position for ventilation, and by which also both sashes may be secured in closed position. The cords are connected with the top and front of the upper sash, and then passed over pulleys arranged on the top of the lower sash.

NEW AGRICULTURAL INVENTIONS.

IMPROVED FENCE POST.

Frederick Suiter, De Witt, Iowa.—This consists of a slotted metallic tube with a wooden core, to which the wire-supporting staples are fastened. A top staple and wire retain a protecting cap, and a bottom staple and wire the inner wooden section.

IMPROVED HARROW.

William Taylor, St. Louisville, Ohio.—This harrow is so constructed that it will readily adjust itself to irregularities in the surface of the ground, and will allow either side to be raised to pass obstructions, and to clear it of rubbish. It has longitudinally hinged sections.