

Thompson Vs. Boisselier

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Appellant : Thompson

Respondent : Boisselier

Judgement :

Thompson v. Boisselier - 114 U.S. 1 (1885)

U.S. Supreme Court Thompson v. Boisselier, 114 U.S. 1 (1885)

Thompson v. Boisselier

Argued March 10, 1885

Decided March 30, 1885

114 U.S. 1

APPEALS FROM THE CIRCUIT COURT OF THE UNITED

STATES FOR THE SOUTHERN DISTRICT OF NEW YORK

SYLLABUS

The third claim of reissued letters patent No. 978, granted to William S. Carr, June 12, 1880, for "improvements in water closets" (the original patent having been granted to him August 5, 1856, and, as reissued, extended July 23, 1870, for seven years from August 5, 1870), namely,

"In a valve for water closets, a cup leather for controlling the motion of said valve in closing gradually, substantially as specified, said cup leather moving freely in one direction, and closing against the containing cylinder in the other direction, and the leakage of water in said cylinder allowing the movement

Page 114 U. S. 2

of said cup leather as set forth,"

construed, and the operation of the device explained.

The state of the art as to prior devices and the construction and operation of the defendants' device, set forth.

In view of the state of the art, *held* that for the purpose of securing the free passage of water in one direction and preventing its escape in the other direction otherwise than gradually, the defendants had used nothing which they did not have a right to use, and had not appropriated any patentable invention which Carr had a right to cover, as against the defendants' structure, by the third claim of his reissue.

All that Carr did, if anything, was to add his form of orifice to the valve and cup leather of an existing pump plunger.

The third claim of the Carr reissue involves as an element in it the means of leakage set forth.

The only point of invention, if it could be dignified by that name, was the special means of leakage shown by Carr, but which the defendants did not use.

To be patentable, a thing must not only be new and useful, but must amount to an invention or discovery.

Recent decisions of this Court on the subject of what constitutes a patentable invention cited and applied.

Under them, claim three of the Carr reissue must, in view of the state of the art, either be held not to involve a patentable invention or, if it does, not to have been infringed.

The first claim of letters patent No. 21,734, granted to Frederick H. Bartholomew, October 12, 1858, for an "improved water closet," and extended October 2, 1872, for seven years from October 12, 1871, namely, "The use of a drip box or leak chamber arranged above the closet and below and around the supply cock substantially as described," must, in view of the state of the art, be limited to a drip box arranged above or on top of the closet, and is not infringed by a structure in which the drip box is cast on the side of the trunk, near the top but below it and not on top of it.

These are suits in equity to restrain infringements of a patent. The facts which make the case are stated in the opinion of the Court.

MR. JUSTICE BLATCHFORD delivered the opinion of the Court.

These are four suits in equity. The first one was brought

Page 114 U. S. 3

in February, 1877, in the Circuit Court of the United States for the Eastern District of Missouri by Charles F. Blake, as trustee of William S. Carr and Frederick H. Bartholomew, against Elizabeth E. Boisselier and John C. Kupferle for the infringement of reissued letters patent, No. 978, granted to William S. Carr, June 12, 1860, for "improvements in water closets," the original patent having been granted to him August 5, 1856, and, as reissued, extended, July 23, 1870, for seven years from August 5, 1870.

The second suit was brought in February, 1879, in the same court by Charles F. Blake, as trustee of Sarah Bartholomew, against the same defendants for the infringement of letters patent, No. 21,734, granted to Frederick H. Bartholomew, October 12, 1858, for an "improved water closet," and extended, October 2, 1872, for seven years from October 12, 1872.

The third and fourth suits were brought in July, 1879, in the Circuit Court of the United States for the Southern District of New York by Charles F. Blake, as trustee, etc., and William S. Carr and Sarah M. Bartholomew -- one against the McNab & Harlan Manufacturing Company and John Harlan and the other against John Eaton and others, each for the infringement of the said Carr patent as reissued and extended, and of the said Bartholomew patent, as extended.

In each of the two suits in Missouri, a decree was made in May, 1880, adjudging that the patent sued on was not good and valid in law and dismissing the bill. In each of the two suits in New York, a decision was made in February, 1881, 7 F. 821, adjudging that the two patents were good and valid in law and that the third claim of the Carr reissue and the first claim of the Bartholomew patent had been infringed and awarding an account of profits and damages, and in January, 1882, a final decree was made in one suit for \$1,200 damages and \$118.74 costs, and in the other for \$415 damages and \$101.24 costs. The plaintiffs in interest in each of the Missouri suits and the defendants in each of the New York suits have appealed to this Court. The questions are the same in all of the suits, and arise on the same proofs.

The third claim of the Carr reissue is the only claim of that

Page 114 U. S. 4

patent which is alleged to have been infringed. So much of the specification of that reissue as relates to that claim is as follows:

image:a

"Fig. 1 is an elevation of my closet as in place for use; Fig. 2 is a plan of the cock and part of the plan of said closet, and Fig. 3 is a vertical section of my cock made use of in letting the water into and shutting the same off from said closet.

Page 114 U. S. 5

Similar marks of reference indicate the same parts in all the figures. The nature of my said invention consists in a peculiar construction of cock which is opened by the motion of the seat of the water closet, and allows but little water to run into the pan of the closet until the weight is removed from the seat, when the cock, gradually closing of itself, allows the water to run for a limited and regulated time sufficient to wash out the basin. . . ."

image:b

"In the drawing, *a* is the trunk on the upper end of the soil pipe *b*, fitted with the pan *r* on the shaft or spindle *q*, and *c* is the basin setting on to the trunk *a*. These parts, thus far, are to be of any usual or desired character; *d* is a pipe supplying water from any suitable head, and said pipe is attached to the coupling 1 that screws on to the body *e* of the cock, and *f* is a pipe and coupling passing water (when admitted as hereafter detailed) to the basin *c*, where it is to be fitted with the deflector as usual. The cock *e* that supplies water to the basin is constructed with a stem *h*, passing nearly or quite air-tight through the leather washer 4 beneath the cap *n*, and the lower end of said stem *h* is formed with a valve *g* and with

Page 114 U. S. 6

a cylindrical part 3, fitting water-tight or nearly so, the opening of the washer 2 between the coupling 1 of the pipe *d* and cock *e* and the sides of this cylinder 3 are formed with notches or a groove *x*. It will now be seen that if the stem *h* be pressed down by the weight of the person acting on the seat *u*, rod *v* and lever *p*, or by any other suitable means, the valve *g* will be forced away from the washer 2 and allow a dash of water to pass through the notch *x* sufficient to fill up the parts of the cock, and then that the cylinder 3, descending and filling the

opening in the washer 2, will prevent, or nearly so, the passage of any more water into the closet; *i* is a spring around the stem *h* which acts in aid of the pressure of the water on the valve *g* to close the same as soon as the force which opened the said valve is removed, but, if this alone was used, the concussion would be so great as to tend to break the parts, besides which sufficient water would not be supplied to the water closet to cleanse the same. I therefore make use of the following means, which cause said valve *g* to close slowly and in a regulated amount of time, thereby allowing the desired quantity of water to dash past the washer 2 at the time the notches or openings *x* are moving past the same. The upper part of the cock *e* is formed as a cylinder *k*, in which is a disk *l*, attached to the stem *h* and a cup leather *m* above the same; *n* is a cap of the cylinder *k* which is formed with a short tube 8, passing up through a hollow projection 0, from the side of the trunk *a* and secured thereto by a nut 6. At the time the valve *g* is pressed down as before stated, the water dashes momentarily on to the cock and fills the same, passing the cup leather *m* and filling the cylinder *k* and, upon the pressure on the stem *h* being removed, the cup leather expands by the slight rise of the stem, and would retain the valve *g* open were the cylinder *k* water-tight, and therefore the closing of said valve will be regulated according to the extent of leakage provided in said chamber *k*, and for this purpose the leakage at the washer 4 around the stem *h* may in some cases be sufficient; but I propose to use a screw 9, entered through the cap *n* with a head next the washer 4 and part of one side of the screw filed away, so as to adjust the amount of leakage and regulate

Page 114 U. S. 7

the time during which the water will run into the closet. . . . I am also aware that a given amount of water leakage has been used to prevent a sudden motion in cocks, balances, meters, and a variety of other instruments; therefore, I do not claim the same, but I am not aware that a cup leather has ever before been so fitted and applied with a valve as to allow the water to pass the said cup leather freely in the chamber in which it moves and then act, when the power is relieved from the valve, upon the water in said chamber and gradually allow the valve to

close."

The third claim of the Carr reissue is as follows:

"Third. I claim, in a valve for water closets, a cup leather for controlling the motion of said valve in closing gradually, substantially as specified, said cup leather moving freely in one direction, and closing against the containing cylinder in the other direction, and the leakage of water in said cylinder allowing the movement of said cup leather as set forth."

In the Carr apparatus, the valve is combined with a containing cylinder and a cup leather in such manner that the valve is caused to close slowly because the action of the cup leather as a tight packing prevents the passage of water while the valve is closing, and the valve can open rapidly because, as it opens, the cup leather does not act as a packing, but permits the passage of water outside of it. In the containing cylinder there is a piston which has on it centrally a cup leather, and is provided with a small aperture which permits the gradual escape of water from it. When the cylinder is filled with water, the valve is held to its seat by a spiral spring. When the valve stem is depressed, the valve opens rapidly because the cup leather permits the water to pass freely outside of it. When the force which depressed the valve-stem is removed, the spring acts to shut the valve, but it shuts slowly because the cup leather acts as a tight packing, being forced outward against the inner wall of the cylinder by the pressure of the water. Therefore the water escapes slowly from the cylinder through the small aperture, and the valve cannot move faster in shutting than it is allowed to move by the escape of the water through the small aperture.

Page 114 U. S. 8

The apparatus alleged to infringe the two patents is the same in all of the suits. It has a brass casting, and is thus described by the plaintiff's expert:

"This brass casting of the defendants has at its lower part a cavity whose walls partially bound the variable chamber. This cavity is a cup-shaped piece of brass

screwed to the bottom of the casting. A cylindrical brass plunger enters this cavity, and the upper end of it is formed into a valve. This brass plunger is packed to the top of the cavity by a cup leather, which is secured between the upper part of the brass cup and an internal flange on the brass casting. The stem of the plunger and valve is surrounded by a coiled brass spring, which always tends to lift the plunger and shut the valve. The plunger has also a small nick or groove cut in its periphery and extending from the top to the bottom of the plunger. When this contrivance is ready for operation, all parts of the cavity in the brass casting, including the variable chamber, are filled with water and the valve is held on its seat by the spiral spring, the plunger then being in its highest position. When it is desired to open the valve, force is applied to depress the valve stem; this force compresses the spring, depresses the plunger, and opens the valve quickly owing to the fact that the water can escape rapidly from the variable chamber, such rapid escape being due to the operation of the cup leather, which now ceases to hug the plunger and acts as a valve, permitting the water to escape freely from the variable chamber. When the force which was applied to depress the stem and open the valve is removed, then the spring strives to shut the valve and elevate the plunger, and as soon as it commences to elevate the plunger, the pressure of water causes the cup leather to hug the plunger tightly so that it ceases to act as a valve and becomes a tight packing. As soon as this occurs, water can only enter the chamber through the small groove in the periphery of the plunger, and the valve can shut no faster than this small flow of water permits it to shut."

It is shown by the evidence that cup leathers had been used in the central valves of the plungers of pumps, the cup leather contracting on the downstroke and allowing the water to

Page 114 U. S. 9

pass by and spreading out on the upstroke and raising the water, and that it was not new to employ a variable chamber to effect, by the gradual escape of water from it, the slow and gradual closing of a valve.

In George Hulme's English patent No. 8,971, of November, 1841, is shown a device for "keeping a valve a open for any required length of time for the supply of water to the basins of water closets generally." The specification says:

"To regulate the length of time that the valve, F, may be kept open for the flow of water from the reservoir to the basin of the closet after the pan or valve has closed, the barrel A A is furnished with the openings N N communicating from the under to the upper side of the bucket D and fitted with a cock O. Now by turning the cock O in such a position that the waterway through the cock O will be diminished, more time will be required for the bucket to displace the contents of the barrel, and *vice versa*. "

The bucket D does not have a cup leather, but has a central valve E to allow the water to pass.

The defendants have substantially the Hulme construction, using a cup leather centrally, instead of the Hulme central valve. A central valve being old, and a cup leather being old, and a central valve and cup leather combined being old, and a plunger with a central valve and a means of regulating the escape of the water from above it being old, and the device for the escape of the water, used by the defendants, being the same as in Hulme, it must be held that for the purpose of securing the free passage of water in one direction and preventing its escape in the other direction otherwise than gradually, the defendants have used nothing which they did not have a right to use, and have not appropriated any patentable invention which Carr had a right to cover, as against the defendant's structure, by the third claim of his reissue. If Carr had made the defendants' form of structure when he made his own, he would not, in view of the state of the art, have made anything having patentable novelty in it, and therefore what he has claimed in claim 3 of his reissue has no patentable feature which the defendants' form of structure infringes. The action of the cup leather in Carr's structure and in the defendants' to admit

the free passage of the water while the valve is moving in one direction and to prevent such passage while the valve is moving in the other direction is due to the flexibility of the leather and to the pressure of the water on its different sides alternately, and to its position with reference to the wall of the chamber, and is the same as in the old central valve of a pump plunger, which was furnished with a cup leather. The effect resulting from allowing the water, which cannot return through the passage by which it entered, to escape by a small orifice and gradually, and thus cause a gradual movement in a valve attached to the central stem, is due to the small orifice. All that Carr did, if anything, was to add his form of orifice to the valve and cup leather of the pump plunger. But the idea of having openings extending from one side to the other of a bucket, and thus regulating the closing of a water valve by the slow escape of the water from the upper side of the bucket through such openings, was fully exhibited in the apparatus of Hulme.

Claim 3 of Carr's reissue speaks of the cup leather as "moving freely in one direction and closing against the containing cylinder in the other direction." This action existed in the cup leather of the old pump plunger. The claim also says, "the leakage of water in said cylinder allowing the movement of said cup leather, as set forth." This means that the greater or less extent of the leakage allows a faster or slower movement of the cup leather and a faster or slower closing of the valve. The claim involves, therefore, as an element in it, the means of leakage set forth. It says that the use of the cup leather is "for controlling the motion of said valve in closing gradually, substantially as specified." But it is the gradual escape of the water through the small orifice which controls the motion of the valve. The cup leather does not control such motion. The only action of the cup leather is the same which it had in the old pump plunger: to hold up a column of water and act as a packing to prevent the return passage of the water. In this condition of things, it would seem that the only point of invention, if it could be dignified by that name, was the special means of leakage shown by Carr of having a screw through the cap with part of the screw filed away, and

which is not used by the defendants, who use the same means of leakage as Hulme did.

The provision of the Constitution, Article I, Section 8, subdivision 8, is that Congress shall have power

"to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

The beneficiary must be an inventor, and he must have made a discovery. The statute has always carried out this idea. Under the Act of July 4, 1836, 5 Stat. 119, 6, in force when these patents were granted, the patentee was required to be a person who had "discovered or invented" a "new and useful art machine, manufacture, or composition of matter," or a "new and useful improvement in any art, machine, manufacture, or composition of matter." In the Act of July 8, 1870, 16 Stat. 201, 24, the patentee was required to be a person who had "invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof," and that language is reproduced in 4886 of the Revised Statutes. So it is not enough that a thing shall be new in the sense that in the shape or form in which it is produced, it shall not have been before known, and that it shall be useful, but it must, under the Constitution and the statute, amount to an invention or discovery.

To refer only to some more recent cases, adjudged since these suits were decided below, this principle was applied in *Vinton v. Hamilton*, [104 U. S. 485](#) , where, a cupola furnace being old, and a cinder notch being old, and the use of a cinder notch to draw off cinders from a blast furnace being old, and the cinder notch, in drawing off the cinder from a cupola furnace, performing the same function as in the blast furnace, it was held that the application of the cinder notch to the cupola furnace would occur to any practical man, and that there was nothing patentable in such application.

In *Hall v. Macneale*, [107 U. S. 90](#) , a cored conical bolt in a safe with a screw thread on it, having existed before, and also a solid conical bolt, it was held to be no invention to add the screw thread to the solid conical bolt.

Page 114 U. S. 12

In *Atlantic Works v. Brady*, [107 U. S. 192](#) , [107 U. S. 200](#) , it was said, that it is not the object of the patent laws to grant a monopoly for every trifling device which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures, and this doctrine was applied in *Slawson v. Grand Street Railroad Co.*, [107 U. S. 649](#) ; in *King v. Gallun*, [109 U. S. 99](#) ; in *Double-Pointed Tack Co. v. Two Rivers Manufacturing Co.*, [109 U. S. 117](#) ; in *Estey v. Burdett*, [109 U. S. 633](#) ; in *Bussey v. Excelsior Manufacturing Co.*, [110 U. S. 131](#) ; in *Pennsylvania Railroad Co. v. Locomotive Truck Co.*, [110 U. S. 490](#) ; in *Phillips v. City of Detroit*, [111 U. S. 604](#) ; in *Morris v. McMillin*, [112 U. S. 244](#) , and in *Hollister v. Benedict Manufacturing Co.*, [113 U. S. 59](#) .

In the case last cited, the thing claimed was new in the sense that it had not been anticipated by any previous invention and it was shown to have superior utility, yet it was held not to be such an improvement as was entitled to be regarded in the patent law as an invention. The claim was

"A stamp the body of which is made of paper or other material, and having a removable slip of metal or other material, displaying thereon a serial number, or other specific identifying mark, corresponding with a similar mark upon the stub, and so attached that the removal of such slip must mutilate or destroy the stamp."

The part designed to become a stub when the stamp proper was separated therefrom, and displaying a serial number, was well known, and so was the constituent part of the stamp proper designed to be permanently attached to a barrel. The third element -- namely a constituent part of the stamp proper displaying the same identifying serial number as the stub, which part, after the stamp proper had been affixed to the barrel, bore such relation to the permanent part that it could be removed therefrom so as to retain its own integrity but to

mutilate and thereby cancel the stamp by its removal, was not new so far as the contents of such constituent part were identical with those on the stub. But the question turned on that feature of the third element whereby a removable part of the stamp proper, the contents of which identified the stamp with the stub after the stamp had been attached, could be so removed

Page 114 U. S. 13

as to retain its own integrity but mutilate and thereby cancel the stamp by its removal. This was held not to be a patentable invention and

"not to spring from that intuitive faculty of the mind put forth in the search for new results or new methods creating what had not before existed or bringing to light what lay hidden from vision;" but to be only 'the display of the expected skill of the calling,"

and involving

"only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge and the faculty of manipulation which results from its habitual and intelligent practice,"

and to be "in no sense the creative work of that inventive faculty which it is the purpose of the Constitution and patent laws to encourage and reward."

On these principles, claim 3 of the Carr reissue must, in view of the state of the art, either be held not to involve a patentable invention or, if it does, not to have been infringed.

The specification of the Bartholomew patent says:

"The nature of my invention consists in providing for water closets a cistern or drip or leak chamber arranged upon the top of or over the trunk of a closet, and placing a supply cock within or above said drip box or cistern so that any waste or leak or drip from the cock shall be conducted into the trunk so as to insure the keeping of the floor dry. . . . Fig. 1 is a prospective view of a pan-closet, showing my drip box

arranged upon the top plate of the closet and the cock for supplying water to the same secured to the closet within the drip box. . . . The general form of the closet is such as is in common use. Upon the cover R I cast a box, enclosure, or cistern E, about one inch high (more or less), and broad enough to admit of placing the 'A' cock (I use a valve cock) within the cistern, and (where it is practicable) so as also to receive the drip that may escape from the joint at the arm of the basin, called the 'putty-joint.' I screw the cock into the cover of the closet, and make a hole within the drip box or in the bottom of the cock to admit the leak to fall into the trunk P, and not onto the floor."

The first claim of the patent, which is the only one alleged to have been infringed, reads thus:

"First. I claim the use of a drip box or leak chamber arranged above the closet

Page 114 U. S. 14

and below and around the supply cock, substantially as described."

The defendants' structure has a trunk and a supply cock and a drip box arranged below and around the supply cock, but the drip box is cast on the side of the trunk, near the top but below it and not on top of it. The drip goes into the drip box and thence into the trunk and the soil pipe. The following devices are shown to have been old: a drip cup or drip box; a pipe to convey away drippings, in machinery, from a drip box arranged in connection with a cock; a drip cup applied to the valve of a water closet, the leakage from the valve falling into a saucer, and thence finding its way, through a hole, into the inside of the trunk; a valve on the floor at the foot of the trunk; a valve attached to the trunk and below its top; a valve above its top; a valve with a drip pan conducting the drip into the soil pipe at the foot of the trunk; a valve on top of the trunk, and a provision, by means of a hollow arm, to conduct the drip into the trunk. In view of this state of the art, the claim must be limited, as defined by its language and that of the specification, to a drip box "arranged upon the top of or over the trunk" -- "arranged upon the top plate" -- cast "upon the cover" -- "arranged above the closet." The limitation imposed by the

patentee must be presumed to have been made with good reason, and even if there was anything patentable in the claim as it reads, it cannot, in view of the state of the art, be extended to cover any structure except one which has a drip box arranged above or on top of the closet, and therefore has not been infringed.

From these considerations it results that

The decrees in the Missouri suits must be affirmed, and those in the New York suits must be reversed with directions to dismiss the bills, with costs.

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