

enactment, nor in any United States statute. It is true that section 5391, Rev. St. U. S., adopts the laws of the respective states for offenses committed in places under the exclusive jurisdiction of the United States where punishment is not specially provided for by any law of the United States, but this section is expressly excluded from operation in this case by section 2146, above cited. Therefore the Wisconsin statute providing for such offenses cannot be invoked. As this court is wholly dependent upon statutes of the United States for its criminal jurisdiction, and cannot take cognizance of offenses which are declared such either at common law or by state statute, unless there is express adoption and direction by act of congress, I am constrained to hold that jurisdiction does not exist in this case. The motion must be granted, and the defendant discharged.

JOHNSON ELECTRIC SERVICE CO. v. POWERS REGULATOR CO.

(Circuit Court, N. D. Illinois, N. D. March 8, 1897.)

1. PATENTS—INTERPRETATION—INFRINGEMENT.

In a patent for a heat regulator, the diagrams showed, and the specifications described, a bar designed to expand and contract with changes of temperature, and the patentee stated that the valves were actuated "by the direct utilization of the mechanical effects of the expansion or contraction of the substances of which the thermostat is composed." The claims included, as elements of the combination, "a thermostat and a double valve operated directly thereby," and "a thermostat whose free portion is moved by a change of temperature in the surrounding medium." *Held*, that the patent was not infringed by a device in which the thermostatic power was furnished by confined rhigolene, which changes from a liquid to a gaseous form, and back again, with variations of temperature.

2. SAME—TEMPERATURE REGULATORS.

The Johnson patent, No. 314,027, for an improvement in "thermo-pneumatic temperature regulators," construed, and *held* not infringed.

This was a suit in equity by the Johnson Electric Service Company against the Powers Regulator Company for alleged infringement of a patent.

Winkler, Flanders, Smith, Bottum & Vilas, for complainant.
 Ofield, Towle & Linthicum, for defendant.

SHOWALTER, Circuit Judge. Complainant sues for the infringement of claims 1 and 2 of letters patent of the United States numbered 314,027, for an improvement in thermo-pneumatic temperature regulators. The patentee says in his specification:

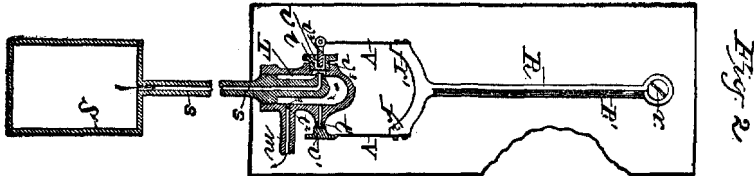
"My invention relates to a class of inventions used to control the temperature of apartments by automatically cutting off or admitting the supply of heat, and it consists in certain peculiarities of construction, as will be fully set forth hereinafter."

Again he says:

"In my present invention I utilize the expansion or contraction of substances resulting from a change of temperature to open or close air valves, which, by

admitting compressed air to expansible chambers, serve to actuate the main valves which control the supply of heat. Heretofore, so far as known to me, thermostats have been used for the purpose of controlling passages only in two ways: First, by moving the main valves directly, as in damper regulators for furnaces; and, secondly, by closing an electric circuit, which in turn serves to operate the main valve. In a previous invention of mine for an 'electric valve for regulating temperature,' etc., for which I filed an application for letters patent on March 10, 1884, I used the thermostat to control an electric current, which in turn controlled the admission to, or release from, an expansible chamber, of steam, gas, or other fluid; said expansible chamber by its movements serving to control the main valve. In my present invention, however, I discard the intermediate use of electricity for accomplishing the ultimate design, and actuate the valves for compressed air or other gas by the direct utilization of the mechanical effects of the expansion or contraction of the substances of which the thermostat is formed."

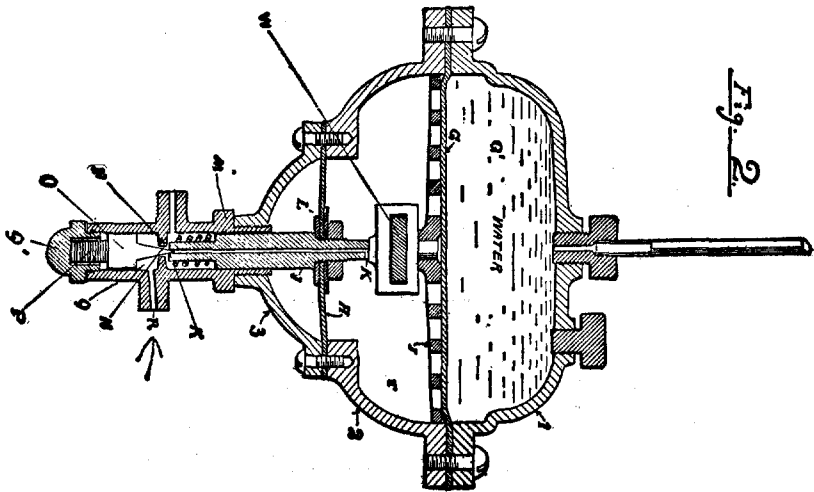
The thermostat shown and described in the diagrams and specification of the patent is a flat bar made by joining longitudinally the flat sides of two thinner bars, one of steel, and the other of a substance more sensitive to changes of temperature,—say, vulcanite. This bar is firmly fixed at one end, the other or free end extending downward, and bearing a yoke, on each extremity of which is extended, further downward, an arm or tine, so that a plane through the yoke and arms is at a right angle to the plane of junction between the steel and the vulcanite. The suit is grounded on the device shown in Fig. 2 of the patent. The arm to the left is marked V. I shall, in this opinion, call the one to the right V'. These are spring arms; that is, they



admit of slight flexion to right or left. The double-valve casing is between them, and they are so set with relation to each other that when the thermostatic bar is straight their lower ends, serving as valves, close both the discharge and the supply ports for the compressed air. When by rise of temperature the bar is warped or bowed so that its lower end inclines to the left, the valve on arm, V, parts from its seat, and the compressed air passes to an expansible chamber, and pushes down a main valve, and shuts off the heat. By the decline in temperature which now ensues, the lower end of the bar commences its movement to the right, the supply port is first closed by the arm, V, and then the discharge port is uncovered by the parting therefrom of the arm, V', thus permitting the escape of the compressed air from the expansion chamber, whereby the heat is once more let on. In brief, a change of temperature moves the lower end of the bar, like the end of a lever, to right or left, and this direct mechanical movement opens and closes—that is to say, operates—the valves.

In the device of the defendant the thermostat is an air-tight

metallic chamber, divided internally, by a corrugated, expansible partition, into two compartments. One is partly filled with a substance called "rhigolene," which is normally liquid, but which expands by volatilization under a rise in temperature. The other is connected by a downward pipe with a third chamber, the lower wall of which is an elastic diaphragm. These two latter, and the pipe connection between them, are filled with air and water. When the rhigolene volatilizes, and so expands by heat, the corrugated partition presses against the fluid piston in the inclosed space described. The central portion of the elastic diaphragm in the lower chamber is pushed downward against the upper end of an upright piece so arranged in a valve casing that by its downward motion it first closes the discharge port, and then opens the supply port. The heat being thus shut off by the



action of an expansible chamber on a main valve, the volatile substance in the chamber first mentioned contracts into the liquid form, and the corrugated partition resumes its normal position. The space within the two chambers connected by the pipe is thus again enlarged, and the pressure, whereby the diaphragm and the upright piece were so moved downward, ceases. By the elasticity of the diaphragm, and the reflex action of the two springs, P and W, which directly antagonize the downward movement of the liquid piston, the supply valve is shut, and thereafter, by the further action of the spring, W, and the contraction of the diaphragm above it, the discharge valve is opened and the heat let on.

The claims in suit are in words following:

"(1) The combination, with a main valve controlling steam or analogous passages, and an expansible chamber for operating said valve, of a thermostat and a double valve operated directly thereby, a reservoir of compressed air, and suitable pipe connections or passages, substantially as described, whereby the main valve will be operated by the compressed air, and the passage of the

latter to and from the expansible chamber be controlled by the action of the thermostat, substantially as set forth.

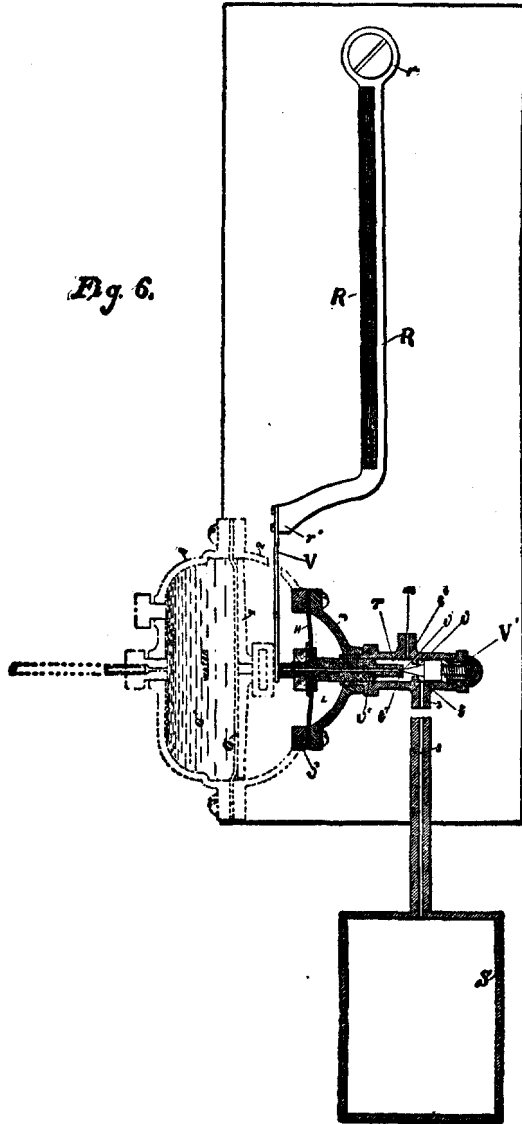
"(2) In a temperature regulator, the combination of a thermostat whose free portion is moved by a change of temperature in the surrounding medium, a valve mechanism operated by the mechanical action of said thermostat, a reservoir of air or other gas under pressure, the escape of the air or gas from said reservoir being controlled by the mechanical action of said thermostat through said valve mechanism, an expansible chamber whose inlet and outlet are controlled by said valve mechanism, and a valve operated by the expansion of said chamber, said valve by its movements controlling a steam or other passage, whereby a rise of temperature in the medium surrounding the thermostat operates the outlet to said reservoir and inlet to said expansible chamber, so that the chamber is expanded, and the valve governing the steam or other passage is operated in one direction, and a fall of temperature in the surrounding medium through the mechanical action of the thermostat serves to close the inlet to said expansible chamber, and opens the outlet to said chamber, whereby the said valve which controls the steam or other passage is operated in the other direction, substantially as set forth.

In Fig. 1 of the patent the thermostat has rigid forks, which act through the instrumentality of an eccentric notched disk, link attachment to valve stem, spring, and clockwork, to operate the valve. This construction would seem, prima facie, to contain the "valve mechanism operated by the mechanical action of the said thermostat" of the second claim, whereas the "thermostat and the double valve operated directly thereby" of the first claim are illustrated in Fig. 2. It is insisted, however, that the structure in Fig. 2 is also covered by claim 2. But, so far as concerns that claim, the device of defendant does not show "a thermostat whose free portion is moved by a change of temperature in the surrounding medium." "The free portion" of the thermostat of the patent is that portion which is free to move by a "change of temperature in the surrounding medium," being the entire bar, except the upper end, which is held in a fixed position at r. The surrounding medium is the atmosphere. By a rise in temperature the lower end moves to the left; by a fall, to the right. Self-expansion and self-contraction in the "free portion" thus generate mechanical movement in either direction. In the defendant's device the thermostatic force made use of is the expansion by volatilization of the rhigolene. Movement is thereby imparted to the corrugated partition, and by the latter to the liquid piston. Thence, by the associated mechanism, the discharge valve is pushed to its seat, and thereafter the supply valve is pushed from its seat. When the rhigolene liquifies, the change of temperature generates no force to move the valve mechanism. The corrugated partition, being relieved of the pressure which forced it into strained expansion, tends by its mechanical construction to contract into its former position, aided by the disposition of the lower diaphragm to contract and force upward the liquid piston under stress of springs, W and P. The free portion of defendant's thermostat, namely, the corrugated partition, being that portion which moves, and by its motion produces mechanical effects on structures which are no part of the thermostat, is not incited to such action by self-expansion or self-contraction through change of temperature. It is not "moved by change of temperature in the sur-

rounding medium," but by the volatilization or forced disintegration of the rhigolene. The words of the claim, "a thermostat whose free portion is moved by a change of temperature in the surrounding medium," identify the bar thermostat as described in the specification and shown in the diagram of the patent. These words have no fitness, especially when read in connection with the specification and diagrams, to indicate the thermostatic structure used by defendant. In a sense, every thermostat must have a portion "which is moved by change of temperature in the surrounding medium"; and, in so far as this portion is free to so move, it is the "free portion" of the thermostat. The words, "whose free portion is moved by a change of temperature in the surrounding medium," are meaningless and superfluous, unless they describe the kind of thermostat shown in the diagrams of the patent. In my judgment, the thermostat of claim 2 is not in the defendant's device.

The combination of claim 1 contains, among others, the factor, "a thermostat and a double valve operated directly thereby, * * * substantially as described." In the device of defendant the discharge port or outlet is pushed over the apex of the conical stopper, O, and so closed by the direct action of the thermostat. By further direct thermostatic action the cone is pushed down out of contact with the circumferential edge of the supply port or aperture. But the reverse process, whereby the conical stopper is pushed upward to close the supply port, is due to the spring, P, and the lifting the discharge opening away from the stopper or apex of the cone is by spring, W. The volatilization of the rhigolene generates sufficient power not only to close the discharge port and open the supply, but to do this against the opposing pressure of the corrugated partition, the elastic diaphragm, the spring, W, and the spring, P. By a rise in temperature the rhigolene changes from a liquid to a vapor or gas. This change of form, like the change of water into steam, is the source of thermostatic power in defendant's device. Volatilization, and not mere expansion of a substance without structural change, is the principle of defendant's thermostat. Moreover, as already explained, the thermostatic force as developed by change of temperature in defendant's device is in one direction only, but this force is sufficiently intense to overcome the resistance of mechanism which, as soon as such force ceases, will exert power in the opposite direction. It is the play of the intermittent thermostatic force, in antagonism to the constant forces of the springs, P and W, the elastic diaphragm, and the corrugated partition, which operates the valves in the structure of defendant. In the device of the patent the arms, V and V', by direct thermostatic movement, open and close the valves. Mechanism which would cause the supply port to be constantly closed, and the discharge to be constantly open, is not intermittently opposed and overcome by the force of the thermostat. By thermostatic action the arm, V, in Fig. 6 of the series, whereby the evolution of defendant's construction out of the patent in suit is attempted, directly pulls the discharge port away from its conical stopper. This is done in defendant's de-

Fig. 6.



vice by the spring, W, which exerts force in direct opposition to the thermostat. When the arm, V, of said Fig. 6, moves to the right in pushing the cone from the supply port, it must oppose and overcome the resistance of spring, V, put into the figure to represent defendant's spring, P, and to serve apparently as an equivalent for the arm, V', of the patent. But in the device of the patent the arm, V', instead of opposing the arm, V, in this movement, aids it. So far as concerns the direct action of the thermostat to operate the valves (that is, to move them in either direction as may be required), the evolved construction of Fig. 6 is a departure in one direction from that of defendant, and in the opposite direction from that of the patent. "A double valve operated directly" by a thermostat, "substantially as described" in the specification of the patent, is not found in the device of defendant.

It is said that the thermostat by its direct action bends the spring, W, and compresses the spring, P, and that the force is thus lodged in these springs whereby they react, when relieved of the pressure, to first close the supply port and then open the discharge. But the resilience of these springs is not the direct action of the thermostat; nor is the capacity of the springs to rebound a force added to the springs by the thermostat. That force is due to the mechanical structure of the springs, and the nature or quality of the material out of which they are made. The patentee states in his specification that his invention consists in "certain peculiarities of structure, as will be fully set forth hereinafter." The essential peculiarity of construction is that whereby thermostatic forces in appropriate sequences and in opposite directions are utilized immediately and directly to open and close—that is, to operate—valves. The bill is dismissed for want of equity.

THE GLENDALE.

THE GLENDALE et al. v. EVICH.

(Circuit Court of Appeals, Fourth Circuit. July 10, 1897.)

No. 215.

1. ADMIRALTY JURISDICTION—STATUTORY LIENS—ACTION FOR WRONGFUL DEATH.

A state statute giving a right of suit in rem against a vessel wrongfully or negligently causing the death of any person (Code Va. § 2902) creates a lien, and may be enforced by a libel in rem in the federal courts, when the accident occurs in waters of the state navigable from the sea. 77 Fed. 906, affirmed.

2. ADMIRALTY APPEALS—WEIGHT OF EVIDENCE—EFFECT OF DECISION BELOW.

When all the testimony in the cause has been taken, not before the judge below, but before a commissioner, and is all before the appellate court in his report, that court must examine it for itself, and reach its own conclusions.

Appeal from the District Court of the United States for the Eastern District of Virginia.

This was a libel in rem by Phillip B. Evich, administrator of Joseph Evich, deceased, against the steamtug Glendale, and Horace Furman and E. J. Furman, composing the firm of Furman Bros. (owners of said tug), to recover damages for wrongfully causing the death of the said Joseph Evich. The district court rendered a decree for the libellant (77 Fed. 906), and the owners have appealed.

William Flegenheimer, for appellants.

H. R. Pollard and Conway R. Sands, for appellee.

Before GOFF and SIMONTON, Circuit Judges, and BRAWLEY, District Judge.

SIMONTON, Circuit Judge. This is an appeal from the district court of the United States for the Eastern district of Virginia, sitting in admiralty. The libel is filed by the administrator of Joseph Evich, deceased, against the steamtug Glendale in rem. The alleged cause of action is the death of libellant's intestate, arising from the collision with the said tug.

The first question is: Has the court, sitting in admiralty, in the Eastern district of Virginia, a jurisdiction in rem for a tort resulting in the death of the person injured? In *The Harrisburg*, 119 U. S. 199, 7 Sup. Ct. 140, the supreme court discusses this question. After an elaborate and full review of all the cases reported, the court decides that no such proceeding can be maintained in admiralty in the absence of a statute giving the right; and the court expressly reserves the question whether such a right having been given to the state courts, the federal courts sitting in such state can exercise it in admiralty. In *The Corsair*, 145 U. S. 335, 12 Sup. Ct. 949, the question is again fully and elaborately discussed, and the authorities, American and English, reviewed. And it is stated that, by the last and most