

of opinion that this alleged prior invention has not been established by that clear and satisfactory proof which is necessary in order to invalidate the Noyes patents. Decree for complainant.

MUNICIPAL SIGNAL CO. v. GAMEWELL FIRE ALARM TEL. CO. *et al.*

(Circuit Court, D. Massachusetts. August 10, 1892.)

No. 2,537.

PATENTS FOR INVENTIONS — LIMITATION OF CLAIM — PRIOR ART — MUNICIPAL SIGNAL BOXES.

Letters patent No. 344,430, issued June 29, 1886, to John C. Wilson, for an electric signal box, covers, in claim 6, a box in which a citizen's key removes an obstacle from the signaling crank, and the signal is then operated by turning the crank, whose handle projects through the door. The key, after performing its function, is entrapped so as to prevent its withdrawal by means of mechanism operated by the movement of the door, the key being held while the door is closed, and released when the door is opened. The claim is for a signal box in which the mechanism is "controlled" by a key, etc. Held that, in view of the prior state of the art, as shown by letters patent No. 157,002, issued November 17, 1874, to Z. P. Hotchkiss, and by the Wright, Holley & Miles patent of June 17, 1873, the claim cannot be construed to cover a signal box in which the transmitting mechanism is operated directly by the key, and without any further action by the operator.

In Equity. Suit for infringement of patent. Bill dismissed.
Fish, Richardson & Storrow, for complainant.
Charles N. Judson, for defendants.

COLT, Circuit Judge. This suit relates to electrical signal boxes used in a municipal signal system. It is founded upon the alleged infringement of three letters patent,—No. 157,002, dated November 17, 1874; issued to Z. P. Hotchkiss, No. 344,430, dated June 29, 1886, issued to John C. Wilson, and No. 288,536, dated November 13, 1883, issued to John C. Wilson and Milton G. Davis. As the Hotchkiss patent has now expired, it is no longer relied upon by the complainant. The date of application for the Wilson patent is earlier than the date of application for the Wilson & Davis patent. The complainant, being satisfied that both these patents contain the same invention, has elected to stand in this case upon the Wilson patent alone. In order to understand the scope of the Wilson patent, it is necessary to briefly review the state of the art at the time the invention was made. Electric signal boxes are used to convey to a central station an alarm of fire, or other like signals. Three requisites seem to be necessary: The signal should be sent with the least possible delay; it should be correct; and the sending of unauthorized signals should be prevented, as far as possible. The box is connected by a wire with the central station, and the message is transmitted by alternately opening and closing the electric circuit at the signal box. This is done by means of a key which operates a break wheel with a notched periphery, the raised portions of the wheel touching a fixed contact

spring, and so closing the circuit, while the notches in the wheel do not touch the spring, and consequently break the circuit. The break wheel transmits the number of the box, and sometimes a special message in addition. It is commonly moved by a mechanical motor, and to transmit the signal the motor is wound up and runs down again, or, where a normally wound motor is used, a detent is removed, and the motor permitted to run far enough to send the desired signal. In the last class of boxes, where the motor is wound up from time to time, the signal can generally be repeated by tripping the motor for the second time. In order to keep the public from meddling with this mechanism it was inclosed in a box. On the outside of the box there was a handle which the sender of a signal could turn, and thereby transmit the signal by winding or tripping the motor.

It is obvious that a box of the character described, if put upon the street, would be the subject of false alarms from mischievous persons turning the handle; consequently such boxes were inclosed in an outer box with a lock door; and, in order to send an alarm, the key to this outer box had to be obtained, and the door unlocked. The inner door could only be unlocked by an officer. In this form of box there would be more or less delay or possible mistake in sending in the citizen's signal, as it required several distinct operations by the sender to reach the signal crank. There was also a possible difficulty in opening the door of the box by reason of rust or ice, and, further, a person might obtain the key and send in a false alarm, and then walk off with the key. These objections were in part overcome by the Fairchild patent of October 28, 1873, whereby the lock was so constructed as to trap the key. This lock was applied to the outer door of the box, and the citizen was still obliged to open the outer door before he could operate the signal. In the Wright, Holley & Miles patent, dated June 17, 1873, the box was constructed with one door, which did not need to be opened for the purpose of sending the citizen's signal. The citizen inserted a detachable alarm key in the box, and by turning it removed a detent from a normally wound signaling mechanism, and so sent in the signal. It was not necessary in this device to unlock the door, open it, and pull a signal handle, but only to insert and turn a key in the box. In the Hotchkiss patent, dated November 17, 1874, the patentee states his invention at the beginning of the specification:

"My improved signal box is secured by a lock, the key of which is intended to be placed in the hands of the chief engineer, or other responsible public officer, a second key being issued to customers, by which key, only, an alarm can be given. The construction of the parts is such that, after the alarm key has once been introduced by a party desiring to turn in an alarm, it cannot be withdrawn until the proper functionary arrives with the key which opens the box, and rewinds and sets the alarm mechanism for future use."

In this device the alarm was turned on by the operation of the citizen's key inserted in the outer door of the box, and the key was trapped by means of a combination of locks. This device seems to combine the improvements of the Fairchild and the Wright, Holley & Miles patents.

The foregoing illustrate the state of the art at the time of the Wilson invention.

The Wilson patent is for an apparatus in which the citizen's key removes an obstacle from the signaling crank, and the signal is operated by turning the crank, whose handle projects through the side of the door. There is a keyhole in the outside of the box, in which the citizen's key is inserted, and the turning of this key permits the sending in of an alarm by removing the obstruction in the path of the signaling lever. The locking or trapping device for the key is operated by the movement of the door, which prevents the withdrawal of the key when the door is closed, and releases it when the door is open. The first five claims of this patent are for the specific devices described therein. The sixth claim upon which the defendants rely in this case is in the following language:

"A signal box having a movable door and transmitting mechanism, the operation of which is controlled by a key inserted from the outside of the box while the door is closed, and a locking device for the said key, operated by the movement of the door preventing the withdrawal of the key when the door is closed, and releasing or unlocking said key when the door is open, substantially as described."

It will be observed that this claim consists of two elements,—a signal box, the operation of which is controlled by a key, and a trapping device for the key, operated by the movement of the door. The special merit of the Wilson invention seems to lie in controlling the locking device of the key by moving the door, and this feature may have shown invention. So far as operating the signal crank, however, the Wilson apparatus is inferior to the prior Hotchkiss device. In the Hotchkiss device, the citizen's key operates directly the alarm mechanism, while in the Wilson the key only controls such mechanism; in other words, the key only removes an obstacle in the way of the operation of the signal crank, and it is necessary, after the key has been turned, that the citizen should pull downward with his hand the signal lever in order to operate the transmitting mechanism. I do not think a transmitting mechanism controlled by the key covers a transmitting mechanism operated directly by the key. In the defendants' apparatus the key operates directly the alarm mechanism, and for this reason it does not infringe the Wilson patent. The history of the prior art, as above shown, forbids such a broad construction of this sixth claim as would cover so marked a difference in the operating devices of the transmitter. Upon this ground, I must direct that the bill be dismissed, with costs. Bill dismissed.

GAMEWELL FIRE ALARM TEL. CO. v. MUNICIPAL SIGNAL CO.

(Circuit Court, D. Massachusetts. August 10, 1892.)

No. 2,543.

PATENTS FOR INVENTIONS—LIMITATION OF CLAIM—PRIOR ART—INFRINGEMENT.

Letters patent No. 164,425, issued June 15, 1875, to Stephen Chester, for an improvement in fire-alarm signal boxes, cover, in the third claim, "the combination of an independent pinion or equivalent device with a wheel, sector, or rack, and a key or equivalent implement which may pass through an orifice in a closed door, for the purpose of winding a spring or raising a weight." This claim was inserted after the rejection of a broad claim for "the winding up and preparing for action the motive force of said apparatus by turning the key, or similar device, inserted in the keyhole of a closed door or cover." *Held* that, in view of this action, and of the fact that the combination of a pinion, wheel, sector, or rack with a key or its equivalent, passing through an orifice in the door for the purpose of winding a spring or raising a weight, was old at the time of the invention, the claim must be limited to the specific devices set forth, or their equivalents, and is not infringed by a signal box in which the devices are widely dissimilar.

In Equity. Suit by the Gamewell Fire Alarm Telegraph Company against the Municipal Signal Company for infringement of letters patent No. 164,425, issued June 15, 1875, to Stephen Chester. Bill dismissed.

The issue was on the third claim of the patent, which reads as follows:

"The combination of an independent pinion or equivalent device with a wheel, sector, or rack, and a key or equivalent implement which may pass through an orifice in a closed door for the purpose of winding a spring or raising a weight."

Charles N. Judson, for complainant.

Fish, Richardson & Storrow, for defendant.

COLT, Circuit Judge. This bill in equity alleges the infringement of letters patent No. 164,425, dated June 15, 1875, issued to Stephen Chester. The invention relates to an improved form of signal box for the transmission of fire-alarm or other electro-telegraphic signals. The mechanism is somewhat complicated. It is only necessary in this case to particularly examine that part of the contrivance covered by the third claim. The Chester signal box has within the case an interior box which is described as containing a combination of gear-work capable of causing any electrical circuit closing and breaking devices to move with uniform speed, when the weight or spring necessary to produce motion shall be attached thereto and shall be wound up. The patentee further says:

"It has been customary to use clock-springs inclosed within this circular box, C, for impelling the said machinery, which, in very cold weather, are liable to fracture, or to inequality of motive force when subjected to greatly varying degrees of temperature; hence, in many parts of the country, demands have been made to have weights substituted to drive the machinery, which operate outside the box, C. The objection to this latter mode of propulsion has been that the method of winding up the machinery has been such that the weight would be raised with a sudden, impulsive motion, frequently