which was old at the date of the Ennis invention. The fact that the Ennis machine is operated with two strips of paper, while the defendants' machine uses only one, I do not think of material importance.

The first claim of the Ennis patent is for an apparatus which accomplished a result unknown in the art up to that time, and the defendants' apparatus accomplishes the same result through the same, or wellknown, or equivalent instrumentalities, and, therefore, their machine is within the Ennis invention. Decree for complainants.

MUNICIPAL SIGNAL CO. v. GAMEWELL FIRE-ALARM TEL. Co. et al.

31.

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

No. 2,589.

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PATRIME FOR INVENTIONS-ANTICIPATION-MUNICIPAL SIGNAL APPARATUS. Letters patent Nos. 359,687 and 359,688, both issued March 22, 1887, to Bernice J. Noyes, for an invention relating to a system of municipal signals, whereby, auto-matically, and independently of the operator's will, the reception of emergency signals is always marked by the ringing of a bell, while the reception of patrol sig-nals on the same register is never accompanied by an alarm, were not anticipated by either the patent of July 26, 1881, to J. W. Stover, for "improvements in tele-graphic relays," the Field patent of June 19, 1888, for an apparatus for recording stock quotations, or the Wilson patents of March 8, 1885, and June 9, 1886, relating to a municipal telegraph apparatus.

In Equity. Bill by the Municipal Signal Company against the Gamewell Fire-Alarm Company and others for infringement of patents. Decree for complainants.

Fish, Richardson & Storrow, for complainant. Charles N. Judson, for defendants.

COLT, Circuit Judge. The present suit is brought upon letters patent No. 359,687 and No. 359,688, both dated March 22, 1887, issued to Bernice J. Noves, assignor to the complainant. In a municipal signal system it is desirable to distinguish the important from the unimportant messages received at the central station from the signal boxes. The Noves inventions are for devices by means of which the reception of emergency signals at the main station is marked by the ringing of a bell, while in the case of ordinary patrol signals no alarm is sounded. Both classes of signals are made and received upon a single register. This result is accomplished by changes in the electrical current. In the first Noyes patent the specific method of producing the current change is by reducing the strength of the current for ordinary signals, and breaking the circuit entirely for emergency signals; in other words, the selective action is produced by varying the strength of the current. In the second patent, which is for an improvement on the first, the specific method consists in using short impulses or dots for ordinary signals, and for

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emergency signals, in addition to these dots, one or more long current impulses producing dashes; in other words, the selective action is produced by variation in the duration of current impulses. The multiple signal transmitter of Noyes consists of a break wheel with insulated portions on its surface. The periphery of the disk is provided with several groups of signals, so that when brought into co-operation with a contact pen one or another signal is transmitted. The action is automatic, and does not depend on the will of the operator,—that is, one class of messages will always be accompanied by an alarm, and another class will never sound a warning.

Infringement is charged as to the first claim of the first patent, and all the claims of the second patent. Claim 1 of the first patent is as follows:

"A system for transmitting signals from a substation to a central station over a main circuit, wherein are combined a multiple signal transmitter, which is located at the substation, and constructed and arranged to transmit several different signals by current changes of one or another character, a message receiving instrument at the central station, which receives the signal transmitted, and an audible alarm, also located at the said central station, which responds to the current change of one character only, whereby an audible warning may be sounded for some and not for other signals, substantially as described."

It is unnecessary to consider specifically the claims of the second patent.

The substantial defense set up in this case is that, by reason of prior patents and the so-called "Wood device," there was nothing patentable in the Noyes apparatus. With respect to these prior patents, it may be observed, generally, that they do not show the invention of Noyes, and that it is only by reorganizing in one way or another these old devices that they can be made to anticipate the Noves patents. The first patent relied upon by the defendants was granted to J. W. Stover, July 26. 1881, for improvements in telegraphic relays. The object of the invention, as stated by the patentee, is "to provide a compound relay, which may be operated both by the secondary currents of an induction coil and by changes in the magnetism of the core of the induction coil itself." This patent is for a device in which two transmitting keys and two electro-magnets may be included in the same circuit under such conditions that one electro-magnet will respond to the movement of the first key and not to that of the second, while the other electro-magnet will respond to the movement of the second key, exclusively, or to the movement of both keys. The double relay of Stover has two coils about the soft iron core, the primary coil included in the main circuit being wound outside the secondary coil, which is inside and wound directly on the core. The strengthening or weakening of the primary current through the primary coil sets up a secondary current in the inner coil, which is in local circuit, with magnets in such circuit having a polarized armature, and such induced current operates this polarized armature, and

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thereby closes a local circuit through the receiving instrument. The intention of the patent is that this receiver may be operated without affecting the other receiver, which can only be operated by impulses sent over the main current of greater strength and duration. In this device no mention is made of the multiple transmitter of the Noves combination, which is so constructed as to transmit several different signals by current changes of different character. Noves' invention was applicable specifically to police signals, and the system works automatically. Stover's compound relay contains no suggestion of this character: he uses two transmitting devices, and actuates one or both of the receiving instruments at will. There is no suggestion of different classes of messages to be audibly distinguished, or of a multiple transmitter which must always actuate one receiving instrument, and upon which only a certain message can be recorded, depending in no way upon the will of the operator. The Stover patent relates to nothing but a receiving device, and it does not contain or describe the Noves invention. At the most it only suggests one part of that invention.

The Field patent of June 19, 1883, belongs to the same class as that It is for a district telegraph apparatus for recording stock of Stover. quotations, and it is so constructed that the operator may accompany any message with an alarm signal. Two magnets are used, one neutral and the other polarized. The neutral or printing magnet is operated in the usual manner, by making and breaking the circuit. When, however, the operator desires to ring the alarm, he reverses the printing current, and so operates both the printing and polarized magnets, and thereby rings the alarm bell." It is clear that this is not the Noves invention. The operator can send a message without an alarm, or he may send the same message with an alarm, depending upon his will. The essence of the Noyes invention is that every message of a certain kind must be accompanied by an alarm, while every message of a different kind shall never be accompanied by an alarm. In the Field apparatus the operator may transmit the same message on distinct occasions, and may ring the bell on one occasion and not on the other. There is no suggestion in the Field patent of a multiple transmitter adapted to send messages by current changes of different character in the sense of the Noyes patent. The Field invention would be of little, if any, value in the Noyes apparatus, and the Noyes invention is wholly unsuited for carrying out the invention of Field.

As for the Wilson patents, it is only necessary to refer to those dated March 3, 1885, and June 9, 1886. With respect to the first the inventor says: "My invention relates to a municipal telegraph apparatus, and is intended to be used in connection with apparatus of the kind shown in letters patent No. 288,536, dated November 13, 1883." After describing the apparatus he proceeds as follows:

"In accordance with my former patent referred to, it was intended that the policeman, on arriving at each box, should transmit to the main office a patrol signal showing that he was properly making his rounds, which patrol signal was recorded by the same instrument employed to record the particular wants

MUNICIPAL SIGNAL CO. v. GAMEWELL FIRE ALARM TEL. CO. 467

which it was possible for both the policeman and citizen to indicate at the main office. The reception of both patrol calls and want calls on the same instrument is objectionable, as the patrol calls require no service, and will usually greatly outnumber the want calls, and the reception at the main office, on the same instrument, of signals requiring no immediate service and those requiring immediate attention is liable to result in and foster a tendency to carelessness, whereas, if the signals demanding immediate service, or which are in answer to signals conveyed to the policeman from the main office, are the only ones which are recorded, the attendant at the main office is kept always alert whenever the recording instrument is started, knowing that each signal so recorded demands immediate service. The present system of receiving signals at the boxes from the main office enables these objectionable patrol signals to be dispensed with, because the fact that a signal may at any time be awaiting a policeman at his boxes is a sufficient inducement to cause him to go to the boxes at the prescribed times, as he knows that his failure to respond to such a signal will surely be detected and have to be accounted for, and he cannot know in advance, or until after opening the box, whether or not a signal is awaiting him."

From the foregoing language it will be observed that Wilson considered the reception of both patrol calls and want calls on the recording instrument as objectionable, and therefore the only signals conveyed to the central station and there recorded were those requiring immediate attention. It is manifest that this is not the system found in the Noyes patents. In the patent referred to as "the second Wilson patent," two registers are described, one for recording emergency signals, and the other for recording patrol signals. This plainly is not the Noyes invention, wherein only one recording instrument is used.

The defendants have also introduced a box invented by Frank B. Wood, and his abandoned application for a patent filed in February, 1877. I have carefully examined the evidence bearing upon this alleged Taking the whole evidence, I find that the use Wood prior invention. made of his invention was only experimental. Wood testifies that his box was sent to the patent office with his application for a patent. It may be presumed that this box is still in existence, and if so, why is not the original, or a box like it, properly authenticated, produced in evidence? This would show exactly its construction, and it would be far more convincing than the somewhat varied descriptions of the box given by the three witnesses called in his support. The evidence of the experimental use of the box in the New York office of the American District Telegraph Company is not satisfactory. These experiments were made surreptitiously, at night. The construction of the district telegraph apparatus was such that no proper test could be made of the Wood box without disorganizing the whole telegraph system, because that system operated by means of short interruptions of the circuit producing only dots, and therefore an apparatus designed to produce both dashes and dots, or "longs" and "shorts," like the Wood device, would not operate unless changes were made in the telegraphic apparatus. I have not lost sight of Wood's testimony as to the change he says he made in this particular, and I am aware of the language used by Wood in his rejected application. Giving due consideration to all this, I am still

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.

BOXES. Letters patent No. 844,430, 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 to. 157,002, issued November 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 infringe-ment 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

468