

the former to the latter, and an independent pipe leading from the apartment to be protected to a chamber in which the valve is located, and sealed with sensitive solder at a place, in the apartment to be protected, in which the solder will be exposed to the heat generated by the fire. The independent pipe, however, is not used to convey compressed air to the valve chamber, but is used as an exhaust chamber, to suspend a diaphragm by a vacuum until the vacuum is destroyed, when the diaphragm is released and trips the valve; and the valve is held in a closed position, so that the water from the supply-pipe will not enter the distributing-pipes solely by the pressure of water between the two valves. This system differs as much from the system of Gray, in the mode of operation of the devices combined, as Gray's system does from Grinnell's. The independent air-pipe performs no office in holding the valve closed against the water-pressure, but that is accomplished solely by the pressure of the water upon the different parts of the valve. Compressed air is not employed in the air-pipe, because no pressure is necessary to act against the water-pressure in holding the valve closed. No locking or holding device to engage the valve and keep it closed is employed, because this is accomplished wholly and solely by the pressure of the water.

It follows that the defendant does not infringe either of the claims of the patents in controversy. The bill is therefore dismissed.

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GARDNER *v.* PRESCOTT *et al.*

(Circuit Court, D. Massachusetts. May 2, 1888.)

PATENTS FOR INVENTIONS—INFRINGEMENT—CARPET SWEEPERS.

Letters patent No. 186,895, issued January 30, 1877, to Alexander Stewart, for improvements in carpet sweepers, consist of the following claim: "The combination, with the frame of a carpet sweeper and its brush, the spindle, A, attached to the frame, and working longitudinally therein, to support or release the brush, and operated by the spring, D, and handle, E, substantially as set forth." *Held*, that the handle was one of the material elements of the combination, and that defendants' machine, in which they used the spring or its equivalent, but not the handle, was not an infringement.

In Equity. On bill for infringement of patent, brought by Henry Gardner against John W. Prescott *et al.*

*W. A. Macleod*, for complainant.

*J. M. Van Fleet*, for defendants.

COLT, J. In this suit the respondents are charged with the infringement of letters patent No. 186,895, issued January 30, 1877, to Alexander Stewart, for improvements in carpet sweepers. The invention consists in the use in a carpet sweeper of a fixed spindle, which supports the brush-roller, and to which a spring is attached, the function of the spring being to hold the spindle in place, and to allow it to be drawn back so as to free the brush-roller. The patentee disclaims "all devices

in which the spindle revolves with the brush, and is removable from the frame with it, such devices in various forms being common and well known." The claim is as follows:

"The combination, with the frame of a carpet sweeper and its brush, the spindle, A, attached to the frame, and working longitudinally therein, to support or release the brush, and operated by the spring, D, and handle, E, substantially as set forth."

In view of the state of the art, it must be admitted that the scope of this invention is very narrow. It will be observed that the handle, E, by which the spring is operated, is made one of the elements of the claim. In defendants' machine they use a spring or its equivalent, but not the handle. Unless we can broaden the claim of the patent so as to leave out the handle as a part of the combination, it is clear that the defendants do not infringe. This cannot be done, because it is apparent from the drawings and specification that the handle was one of the material elements of the patented combination. Nor can it be said that the spring in defendants' device is the equivalent of the spring and handle of the Stewart sweeper. The spring in each device may be made to serve the double purpose of handle and spring, but that does not make the defendants' spring the equivalent of a spring with a handle. Stewart chose to have the handle distinct from the spring, and he describes such handle in his patent, and makes it an element of his claim.

Without entering into the other defenses, I think for the reasons stated that the defense of non-infringement is well taken, and that the bill should be dismissed.

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SIMONDS COUNTER MACHINERY Co. v. YOUNG *et al.*

(Circuit Court, D. Massachusetts. May 3, 1888.)

PATENTS FOR INVENTIONS—INFRINGEMENT—MOULDING SHOE STIFFENERS.

Patent No. 292,514, granted January 29, 1884, to N. J. Simonds, for improvements in moulding stiffeners for boots or shoes, the specification of which shows that the important improvement covered by the patent is the production of a counter with converging front ends, or with a widened center and contracted front, by means of two pairs of moulds. is not infringed by defendants' machine, (under patent No. 350,907, granted to William J. Young,) in which two sets of dies are used,—one to partially shape the blank at its forward ends, and the other to finish it by moulding the rear portions,—but in which there is no converging of the front ends of the counter.

In Equity. Suit for infringement of patent.

W. A. Macleod, for complainant.

J. E. Maymadier, for defendants.

COLT, J. This suit is brought for the alleged infringement of the first claim of letters patent No. 292,514, granted January 29, 1884, to N. J. Simonds, for improvements in moulding stiffeners for boots or shoes. Stiffeners are placed around the heel of a boot or shoe, and the specifi-