equivalent of another, must perform the same function as that other; and, while it can be such an equivalent if it does more than that other, it cannot be such equivalent if it does less." Walk. Pat. § 352. And it is an essential rule, governing the application of the doctrine of equivalents, that not only must there be an identity of function between the two things claimed to be equivalents, but that function must be performed in substantially the same way by an alleged equivalent, as by the thing of which it is alleged to be an equivalent, in order to constitute it such. Walk. Pat. § 353; Machine Co. v. Murphy, 97 U. S. 120; Roller Mill Patent, 156 U. S. 261, 15 Sup. Ct. 333; Seeley v. Electric Co., 44 Fed. 420.

The oven, 2, in the Engle patent, simply serves to retain the wet and offensive substances which are to be burned, and, being made of solid brick work, there can be no separation of the liquid matter from the solid prior to decomposition. The liquid matter in the oven must first be evaporated into steam, and partially volatilized into gases, before any combustion of the solid matter can take place. This involves the maintenance of a great heat, involving a considerable consumption of fuel; and the process, in the nature of things, must be slow. In the defendant's furnace, the wet and offensive substances are dumped directly on a grated surface, and, as soon as they are thus placed, the liquid matter is separated from the solid, inasmuch as the fluids percolate through the grate into a chamber below, while the solid matter remains upon the grate, ready for immediate consumption by fire. In this way the solid matter is more speedily consumed, and with less expenditure of fuel than occurs in the complainant's furnace. The complainant's oven, 2, serves only the one function of receiving and holding both the liquid and solid matter deposited therein, and there subjecting them to consumption by fire. The defendant's open-work grate performs the additional function of separating the liquid from the solid matter, thus permitting each at once to be separately acted upon by fire. It is therefore apparent that the defendant's open-work grate does not perform the same function as the oven, 2, in complainant's furnace, and in substantially the same way, which is of the essence of equivalency.

The foregoing considerations apply with equal force to the second and third claims of the complainant's patent, and show that the defendant has not infringed either of them. It follows that a separate consideration of the alleged infringement of these claims is unnecessary. The complainant has failed to establish the alleged infringement complained of, and its bill must be dismissed, for want of equity, at its cost, and it is so ordered.

WHITELY v. FADNER et al.

(Circuit Court, N. D. Illinois. December 16, 1895.)

1 PATENTS—INFRINGEMENT—IMPROVEMENTS—COLORABLE VARIATIONS.
Infringement is not avoided merely because the alleged infringing device is better, more useful, and more acceptable to the public, nor

because, by some colorable variation or expedient, it merely impairs or narrows the function and usefulness of the patented device.

2. Same—Exercising Apparatus.

Patent No. 418,257, for improvements in elastic cord exercising apparatus, construed, and held valid and infringed.

This was a suit in equity by Alexander A. Whitely against Frederick J. Fadner, R. S. Hopkins, and J. C. Billingslea, for alleged infringement of a patent.

Francis W. Parker and Edward D. Cooke, for complainant. Frank B. Thomason and Dyrenforth & Dyrenforth, for defendants.

SHOWALTER, Circuit Judge. This is a bill to enjoin an alleged infringement of the first claim of letters patent No. 418,257, dated December 31, 1889, for an invention relating "to elastic cord exercising apparatus." Said claim is in the following words:

"As an exercising apparatus, a cord, elastic throughout its entire length, having pulleys thereon, over which the elastic cord travels, and hooks to which said pulleys are adapted to be secured."

It is said that this is an aggregation, not a patentable combination. Apart from the exceptional convenience of this apparatus as an exerciser, its adaptation to the strength of whatever person may happen to use it, and its adjustment to muscular movement in indefinite variety, the special function or result seems to be resistance to muscular contraction, which is approximately uniform while such movement continues, but gradual,—that is to say, without jerk or wrench, at the inception of such movement. By means of the pulleys the cord is given the requisite length, while the friction over the pulleys is also involved, to some extent, in the result named. I cannot say that said result is not the joint product of the combination, and in that sense new. As contrasted with apparatus wherein weights are lifted by nonelastic cords running over pulleys, that in suit does not oppose—at least, so as to cause any wrench, jerk, or undesirable effect—the initial muscular movement, and it adapts itself, during the continuance of such movement, to the strength of the person using it. This, I take it, may be deemed a distinction of function,-a difference in kind, rather than in degree. As contrasted with apparatus wherein the means of resistance is a spring, or short elastic substitute therefor, to which handles may be directly attached, or nonelastic cords, running over pulleys, that in suit opposes the movement or muscular contraction with a resistance which is approximately uniform. The special function of the spring. or elastic substitute therefor, as used prior to this patent, was rapidly increasing resistance as the muscles contracted, and while the movement caused by such contraction progressed. I think this difference may also be considered one of function, rather than of degree. The subsequent patent to Pickles, and the refusal of the patent office to grant a patent to these defendants, seem in line with the distinctions here made.

The evidence shows acceptance and use of complainant's apparatus by the public to a degree which is noteworthy as indicating a new and useful instrumentality,—a new result, through means not

obvious, or merely suggested by structures of the same general class previously in use. I am not able to say that the prima facie validity of this patent is overcome by the showing of this record, nor is the evidence as to anticipation by Graves clear and satisfactory. What he did was seemingly experimental. The distinctive ideas of this patent were apparently not present in his mind, or suggested by whatever it was he made. By driving a pin, through the middle of the cord, into the lower or central pulley of complainant's exerciser, so as to stop the play over that pulley, we have, substantially, the exerciser of defendants. If two pulleys, widely separated, be substituted for the one lower central pulley in complainant's apparatus, and the cord be pinned to each of these, we would again have substantially the apparatus made by defendants. In either case, defendants' apparatus would be "a cord, elastic throughout its entire length, having pulleys thereon,"—namely, the two upper pulleys,— "over which the elastic cord travels." The function of complainant's apparatus, in large part, is not dependent on the play over the lower pulley, the cord at that point remaining stationary. In other words, the function, utility, or result of defendants' apparatus is contained in that of complainant. It makes no difference that defendants have chosen to cut the cord at the lower pulley and there secured the two ends. They might as well have pinned it to the pulley without cutting it.

An infringement is not avoided because the infringing device is better, more useful, and more acceptable to the public than that of the patent infringed; nor, on the other hand, because the infringing device, by some colorable variation or expedient, merely impairs or narrows the function and usefulness of the device infringed.

The injunction may issue, as prayed.

CALDWELL et al. v. POWELL.

(Circuit Court of Appeals, Third Circuit. April 10, 1896.)

No. 12.

1. Design Patents—Infringement Suits—Demurrer for Want of Invention—College Badge.

The conception of a design for a college badge, of gold or other metal and enamel, triangular in shape, like a guidon, having on its face a combination of red and blue colors, in two horizontal stripes, and bearing the letters "U. P." embossed thereon, is not so manifestly wanting in invention as to warrant the court in holding a patent therefor void, upon demurrer to the bill. 71 Fed. 970, reversed.

2. Same.

The Van Roden patent, No. 20,748, for a design for a college badge, held not void, on its face, for want of patentable invention. 71 Fed. 970, reversed.

Appeal from the Circuit Court of the United States for the Eastern District of Pennsylvania.

This was a bill by James E. Caldwell and others, against Charles S. Powell, for infringement of letters patent No. 20,748, for a design for