the separate elements of the combination, each of which is frankly admitted to be old. If the claim is to be confined to a particular form of heater, switch or indicator, it could be avoided in as many ways as there are patents in the record. It would, of course, be absolutely worthless. There is nothing in the specification or in the record requiring the claim to be so limited.

The defendant's apparatus as applied to the heating of a street car is made up of a number of sections each in a separate case adapted to be connected in different ways with the supply conductor. The defendant employs a switch for controlling the connection of the heaters and an indicator to show how the connections stand. There is no frame like that shown in the drawings of the patent for holding the heaters. They are supported by the woodwork of the car body. The switch is not fixed to the frame, but is placed in any convenient place in the car, and the indicator is of a different type from that shown in the patent. All such differences are immaterial. Matters relating merely to form and location are not of the essence of the invention. The specification expressly states that the principle upon which regulating devices operate is well known and that almost any form can be used. It is thought that the defendant's combination operates in substantially the same manner and accomplishes the same result as the combination of the claim. The complainant is entitled to the usual decree.

EWART MANUF'G CO. v. MITCHELL.

(Circuit Court, E. D. Pennsylvania. January 2, 1897.)

No. 46.

FATENTS-CONSTRUCTION AND INFRINGEMENT-CHAIN CABLES.

The Dodge patent, No. 264,139, for an improvement in cabin cables intended to operate with sprocket wheels, as driving chains, construed as covering a novel and useful invention, which should be protected to its full extent, as disclosed by a fair and unconstrained reading of the patent, and *held* infringed by a chain varying therefrom in matters of form and construction, but performing the same functions in substantially the same way.

This was a suit in equity by the Ewart Manufacturing Company against James H. Mitchell for alleged infringement of a patent for an improvement in chain cables.

Howson & Howson, for complainant.

Francis T. Chambers, Arthur M. Pierce, and Walter E. Rex, for defendant.

DALLAS, Circuit Judge. This is a suit upon patent No. 264,139, dated September 12, 1882, issued to James M. Dodge, for an improvement in chain cables, having, as the specification states, "for its main object to adapt this sort of cable to more successfully operate, in connection with sprocket wheels, as a drive chain, and for elevator and conveyor purposes." The employment of chain cables as drive chains, though in other respects advantageous, was subject to three objeo-

tions, which Dodge proposed to, and did, overcome. The specification states and explains these objections, and the means which the patentee had invented to obviate them; and it describes the three beneficial functions of the bearing blocks which he designed for use in combination with the chain, as being (1) that they afford "proper bearing surfaces for the sprockets or other projections of the chain wheel to work against"; (2) that they afford "a pintle-like bearing surface about equal in diameter to the width or the opening or space between the side bars of a link for each link to articulate or turn on"; and (3) that by their use "the chain with its block is necessarily retained in a given and proper relationship with the peripheral devices of the wheel on which it is run." The applicant, desiring to secure any combination of a chain cable with these blocks by which either or any of these useful objects would be attained, presented three claims, which were allowed, as follows:

"(1) In a chain cable, the combination with the links of blocks interposed between the adjacent end portions of the links, the said blocks being adapted to afford bearing or working surfaces for the actions of the engaging devices of a chain wheel, substantially as set forth.

"(2) In combination with the links of a chain cable, blocks interposed between the adjacent ends of the links, and provided with grooves which afford pintlelike bearings for the said link ends, substantially as set forth.

"(3) In combination with two enchained links, a block having grooves arranged transversely to each other, and operating to prevent any twisting movement of said links relatively, substantially as set forth."

Respecting the question of infringement, which is the only one presented by the defense as urged upon the argument, the respective experts, of course, differ; but my own examination of the exhibits, in the light of all the testimony, leaves me in no doubt about it. The defendant insists that, in view of the prior art, the claims should be so narrowed by construction as not to cover his device; but I cannot assent to this. The evidence plainly shows that Dodge was the first person who ever devised any means whatever which successfully accomplished the object he had in view; and I cannot but regard him as a meritorious patentee, who, having made to the art a contribution of absolute novelty and much value, is entitled to protection to the full extent of his actual invention, as upon, at least, a fair and unconstrained reading of his patent, he appears to have conceived and claimed it.

The gist of the invention consists, of course, in the combination of the peculiar block of the patent (which in itself was new) with a chain cable, for the purposes and with the results stated; and the contention of the defendant that his chain is not a chain cable, and that his "crossbars" are not the complainant's blocks, is, in my opinion, clearly erroneous. His chain, though not wholly composed of the ordinary oblong links with rounded ends of the typical chain cable, embodies its characteristics in so far as is requisite for its use in the combination of the patent in suit. And his "crossbars," though structurally different, are, in principle, identical with the Dodge blocks. The differences consist in immaterial variations of form and construction merely. They perform precisely the same functions, and in substantially the same way. It may be conceded that, in the chain of the defendant, an incidental useful capacity of the complainant's chain is relinquished, and also that some separate advantage is attained; but this is of no consequence, inasmuch as the Dodge invention, as covered by each and every of the claims of the patent in suit, has, nevertheless, been wrongfully appropriated. Decree for complainant.

BUCK v. TIMOMY.

(Circuit Court, S. D. New York. February 6, 1897.)

1. PATENTS-AGREEMENT TO ASSIGN.

An agreement to assign future patents, in consideration of the assignee's paying the expenses of taking them out, is broken by his refusal to pay for and take out in his own name, as assignee, a particular patent, when so requested by the inventor; and a subsequent assignment to another conveys a perfect title.

2. SAME-VALIDITY AND CONSTRUCTION-BRICK-MOLD SANDING MACHINES.

The Buck patent, No. 499,206, for improvements in brick-mold sanding machines, was not anticipated by a prior patent to the same inventor, and is for a new, valuable, and patentable combination, whereby, by means of a yielding mold-feeding rack, the molds are fed automatically to the revolving drum.

3. SAME-INVENTION.

There is no invention in providing an iron plate with elongated bolt holes where the parts must be moved slightly to effect a proper adjustment.

This was a suit in equity by Frances C. Buck against Frank Timomy for alleged infringement of a patent for an improvement in brick-mold sanding machines.

George A. Mosher, for complainant. Walter E. Ward, for defendant.

COXE, District Judge. This is an equity suit for the infringement of letters patent, No. 499,206, granted June 13, 1893, to James A. Buck, assignor to the complainant, for improvements in brickmold sanding machines. The object of these machines is to sand the molds prior to their introduction into the brick machine, so as to prevent the adherence of clay to the molds. This is accomplished by a hollow drum having openings over which the molds are placed. When the drum is rotated, the sand which it contains falls into the molds as they descend and out of them as they rise again, thus Machines of this general character had presanding every part. viously been used, and several patents therefor had been granted The improvement of the present patent has relato this inventor. tion to the mechanism by which the molds are fed automatically to the drum. At first this work was done by hand. Afterwards it was done, imperfectly, by machinery. It was never done in a In practice, the satisfactory manner prior to the present invention. molds, after being used for a time, became sticky from the adhesion of the plastic clay. This often prevented them from moving into In the old machines they would adhere to the rack, beplace. come wedged between the stop on the drum and the pulleys, and thus would clog and break the machine and seriously delay the