

ant, however, does not necessarily require the elastic packing to be interposed between the glass and the back of the frame. As shown in his patent, the packing may surmount the periphery of the glass without having any part of it located beneath the glass, or so as to press the glass against the rim or lip of the frame. It may be doubtful whether the packing would practically be satisfactory if located entirely outside the periphery of the glass. However this may be, the defendant cannot escape liability for infringement when he appropriates the complainants' invention, although, by the location of the packing outside the periphery, his packing performs an additional office, and may involve sufficient invention to sustain his patent.

A decree is ordered for complainant.

MILLER and others v. PICKERING.*

(Circuit Court, E. D. Pennsylvania. April 25, 1883.)

1. PATENTS—EVIDENCE OF NOVELTY AND UTILITY.

Sufficient evidence of patentable merit is shown where the proofs establish that the patentee was the first to conceive the idea of constructing the device described in his patent, whereby improved results were accomplished, and that the public has attested its superior utility and value by adopting the same instead of the constructions previously used.

2. IMPROVEMENT IN CAR SPRINGS—INFRINGEMENT.

A patent for "a coiled, edge-rolled spring, the inner edge of which is of greater thickness than the outer edge," is infringed by a spring made of a bar slightly thicker in the middle than at the edges, but which, when coiled around a mandrel, becomes of the form described in the patent.

3. SAME—ANTICIPATION.

The United States patent (reissue No. 6,321) for improvement in car springs is not anticipated by the English patents (Nos. 670, 1,711, and 2,404,) for improvements in railway carriage buffer and other springs.

In Equity. Hearing on bill, answer, and proofs.

Bill to restrain an alleged infringement of patent, reissue No. 6,321, dated March 9, 1875, granted to James C. Pickles and James P. Hayes, for improvement in car springs, assigned to complainants, in which the claim was:

(1) A coiled, edge-rolled spring, the inner edge of which is of greater vertical thickness than the outer edge, substantially as set forth.

(2) An edge-rolled spiral spring, composed of a single metallic bar of varying thickness in transverse section, substantially as set forth.

*Reported by Albert E. Gullbert, Esq., of the Philadelphia bar.

(3) An edge-rolled spiral spring, having one edge of greater vertical thickness than the other, substantially as set forth.

The respondents denied that complainants' patent possessed any patentable merit, and contended that for more than 30 years it had been matter of common knowledge that, when a bar of iron or of steel of rectangular or other shape, is edge-rolled (coiled) upon a mandrel, as in forming a spiral spring, the edge nearest the mandrel will "upset" or thicken, while the outer edge will "draw down" or thin down. Respondents also denied the alleged infringement, and showed that they used in the manufacture of springs a bar slightly thicker in the middle than at the edges, and produced the English patent No. 1,711, dated July 16, 1860, issued to W. F. Henson, for improvements in railway carriage buffer and other springs, and English patent No. 670, dated March 16, 1861, issued to the same, for railway carriage buffer and other springs, and also English patent No. 2,404, dated September 30, 1864, issued to the same, for buffer and other springs, as anticipations of complainants' patent. It appeared that in 1869, among several springs constructed in the course of experiments, several of the form claimed by the complainants had been constructed, but it was not shown that any practical use had been made of either.

Francis T. Chambers and George Harding, for complainants.

Charles F. Corson and Henry Baldwin, Jr., for respondents.

McKENNAN, J., (BUTLER, J., *concurring*.) The brevity of the patent, on which this suit is founded, is one of its excellences; especially as it is not deficient in clearness and simplicity in the statement and description of the object, nature, and form of the invention.

The object of the patentee was to produce a car spring, combining in an eminent degree the qualities of lightness, strength, and elasticity. It is made from a bar of metal of requisite form, which is rolled on its edge into the shape of a coil around a mandrel. The necessary effect of this treatment is to increase the vertical thickness of the inner edge of the bar, and so make it thicker than the outer edge. This is the essential and characteristic feature of the invention. Hence the claim for "a coiled, edge-rolled spring, the inner edge of which is of greater thickness than the outer edge."

It is urged that, as edge-rolling of metals, and spiral-springs, were well known in the arts before the date of the patent in question, the alleged invention described in it is without patentable merit. This is sufficiently answered by the facts that Pickles was the first to conceive the idea of constructing a spring of the peculiar form described in his pat-

ent, whereby improved results were accomplished, and that the public has attested its superior utility and value by adopting it instead of the other springs then in use. These facts imply the exercise of sufficient inventiveness to sustain a patent. Nor has the objection to the patent on the ground that the device described in it was made by A. H. Campbell, and indicated in the English patent of Henson, any better foundation.

Campbell assisted W. R. Nichols in making experiments to produce springs of different shapes in 1869. One of these was like Pickles'. But it does not appear that it was tested or used in any way, or that it has been heard of since. The public never derived any benefit from it; and it is clear that it must be assigned to the category of abandoned experiments.

Henson's patent is not for the same invention, even by remote similitude, as Pickles'; and, therefore, does not anticipate it. We cannot treat the specification of that patent as a publication within the meaning of the act of congress. But if it could be so treated, it shows nothing more than, by two of the drawings, that bars whose edges are of different thicknesses, are used in the construction of Henson's invention. It is certainly deficient in verbal directions, by the pursuit of which a skilled mechanic could construct a spring like Pickles'.

Upon the question of infringement we think there is no room for doubt. The defendant uses a bar which is slightly thicker in the middle of its surface than it is nearer its edges, but when it is coiled around a mandrel it is thereby impressed with the distinguishing feature of the Pickles spring. It is a coiled, edge-rolled spring, the inner edge of which is of greater vertical thickness than the outer edge. This is an infringement, irrespective of the form of the bar used in its construction.

We are, therefore, of opinion, that the complainant is entitled to an account and injunction, and a decree will accordingly be entered.

FIRE EXTINGUISHER MANUF'G CO. v. GRAHAM, Adm'r. (In Equity.)

GRAHAM, Adm'r, v. FIRE EXTINGUISHER MANUF'G CO. (Cross-bill.)

(Circuit Court, W. D. Virginia. May 9, 1883.)

1. PATENT—SPECIAL ACT GRANTING PATENT TO HEIRS—EFFECT OF ASSIGNMENT BY INVENTOR.

Where an inventor makes an assignment of a part interest in his invention to another, and, both he and his assignee having lost all right to a patent for such invention, by operation of law and by laches, congress subsequently passes a special act, which relieves the heirs of such inventor of the disabilities existing, and preventing them from renewing and reviving an application by the administrator for a patent; authorizes the administrator to renew the application; empowers the commissioner of patents to grant and issue letters patent for the invention; directs that the patent when issued shall have the same force and effect as though no delay had occurred in granting it; requires that the invention should have been new and useful at the time of the original application; and saves to all persons having machines containing said invention in use at the time of the issuing of the patent the right to continue the use of them without charge or molestation, but *says nothing of the rights of assignees of the invention*,—the title of the heirs to the patent granted by such act is in the nature of a title by purchase, and is not affected by the assignment.

2. SAME—SPECIAL LAW EXTENDING PATENT—EFFECT OF.

A special law extending a patent is ingrafted on the general law, not for the purpose of changing the rights intended by congress to be conferred by it, or of enlarging or restricting its purport, but only for the purpose of subjecting those rights to the principles of the general law relating to the validity of patents, and to the jurisdiction and practice of courts administering those rights.

Dr. William A. Graham, who died in 1857, was the inventor or discoverer of a method of extinguishing fires by means of throwing upon burning substances a stream of liquid combined of carbonic acid gas and water, highly condensed. He made reapplication for a patent for this discovery at the patent-office of the United States, in Washington, in November, 1837. His invention is now conceded to have been original, novel, and valuable. His application was examined and was refused on the twenty-fifth of November, 1837. It was re-examined, at his solicitation, and a second time refused, on the sixteenth of December, 1837. He then made out a new and more formal specification, which he filed on the twenty-ninth of December, 1837, in which he claimed the invention, not only of the liquid he described, but also of the apparatus by which to apply it to the extinguishing of fires. This second renewal and amended form of the application was not acted upon at the time, or for 14 years afterwards, by the commissioner of patents, action having been suspended at the request