

sequent cases by expressly excluding the notes from the basis of the computation, and confining it to the cash payments.

But, irrespective of this, we entertain no doubt upon the point in question.

The conclusion to which we have come will involve neither hardship nor hazard to the appellant. The note bears seven per cent interest. The debt will be a lien against the new policy, and nothing can be collected upon it until the entire amount due to the company shall have been first deducted. The security will, therefore, be perfect.

Decree affirmed.

MR. JUSTICE BRADLEY dissented.

KEYSTONE BRIDGE COMPANY v. PHOENIX IRON COMPANY.

1. The manufacture of round or cylindrical bars flattened and drilled at the eye, for use in the lower chords of iron truss bridges, is not an infringement of letters-patent for an improvement in such bridges where the claim in the specification describes the patented invention as consisting in the use of wide and thin drilled eye-bars applied on edge.
2. Although one of the patents under consideration in this suit embraced the use of wide and thin bars, upset and widened at the ends by compression to give additional strength, it does not claim that process. Therefore, the use of round or cylindrical bars strengthened in a similar manner is not an infringement of the patent. *Quære*, Would such a process have been patentable?
3. A patentee, in a suit upon his patent, is bound by the claim therein set forth, and cannot go beyond it.

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

The facts are stated in the opinion of the court.

The case was argued by *Mr. Henry Baldwin, Jr.*, for the appellant, and by *Mr. George Harding* for the appellee.

MR. JUSTICE BRADLEY delivered the opinion of the court.

The appeal in this case is brought to review the decree of the Circuit Court dismissing the bill of complaint, which charges an infringement of two certain patents belonging to the Keystone Bridge Company. These patents were for improvements in iron truss bridges. The first was granted to J. H. Linville and his assignee J. I. Piper, Jan. 14, 1862; the second, to the

same parties, Oct. 31, 1865. The particular claims upon which the contest arises before us are the first claim in the former patent, and the third in the latter. Both of these claims relate to the lower chords of the truss, the primary office of which is to hold the lower parts of the structure together, and keep them from spreading; but which are also employed in the construction of the patentees, to sustain the cross-sills which support the railroad.

We do not think we ought to disturb the decree of the Circuit Court in this case. We regard the construction of the claims in question insisted upon by the appellee as substantially correct. Those claims are the first in the patent of 1862, and the third in that of 1865. It is manifest that, in the former, the form of the chords is deemed material, or, at least, it is made so by the terms of the specification and claim. They are flat bars placed on edge so as to sustain superincumbent weight, as well as perform the office of tension braces. They are made in this form in order that the floor beams of the railroad may be directly laid on them. This is apparent from the whole tenor of the specification. The patentee, in describing his invention, commences by saying: "My invention, consists, 1st, in a novel construction of the lower chords, and mode of applying the same, in combination with the posts and other parts of the truss." Again: "The bottom chords are each composed of a series of wide, thin eye-bars, of wrought iron, of a length corresponding with the distances between the posts on one side of the truss, placed on edge to enable them to give vertical support to the roadway," &c. Then, after showing that these eye-bars or chords are made wider at the ends where the eye-holes are made for inserting the connecting pins or bolts, which connect the different sections together, and explaining the general construction of the bridge and its different parts, he concludes with the following claim: "I do not claim the use of eye-bars or links as chains of suspension bridges; but what I claim as my invention, and desire to secure by letters-patent, is, 1st, the construction of the lower chords of truss bridges of series of *wide and thin* drilled eye-bars, C, C, *applied on edge* between ribs, S, S, on the bottoms of the posts, and connected by pins, P, P, supported in the diagonal tension braces, D and

E, all substantially as herein described." Words cannot show more plainly that the claim of the inventor does not extend to any other eye-bars or chords than such as are made wide and thin, and applied on edge. As those constructed by the defendant are cylindrical in form, only flattened at the eye for insertion between the ribs or projections of the posts, it is plain that no infringement of this claim of the patent has been committed.

The other claim in question, namely, the third claim of the patent of 1865, is for the employment in truss bridges of just such wide and thin chords as above described, whose ends are enlarged or widened by being upset (when heated) by compression into moulds in the manner described in the specification of the patent. The mode of upsetting, widening, and shaping the ends of the bars is by placing the ends, after the bars have been rolled into proper shape and size, and the ends heated, into a die-box of the regular form, and then firmly locking them in place, and with great power pressing them up endwise with a movable head-die until the hot iron fills the die-box. By this pressure the ends are upset, widened, and compressed into the desired shape. It is claimed that by this process the ends are made stronger and better able to sustain the great strain to which they are subjected when in place in the truss. The defendant upsets the ends of the chords made by it before putting them into the die-box, then places them in the box, and flattens them into shape in much the same way that is described in the patent. The process is not in all respects the same, but perhaps sufficiently alike to constitute an infringement if the claim of the patent were only for the process of forming the widened ends. But it is not so, and probably the patent could not be sustained if it were; for spike-heads, nail-heads, bolt-heads, and many other things of that sort, are formed by upsetting and compressing hot iron in the same way. It is only the use in truss bridges of flat bars or chords, with the ends upset and widened in this manner, which the patentees claim as their invention. Their claim is for a particular product, made by a particular process and applied to a particular use. The patent of 1865 refers to that of 1862, and the invention sought to be patented is claimed as an improvement

on the prior one. The patentees say: "Our invention consists of certain improvements in the construction of the wrought-iron truss bridge for which letters-patent of the United States were granted to us on the 14th of January, 1862. In the truss bridge shown in the accompanying drawings the general arrangement of the parts is similar to that shown in our previous patent just referred to, — the improvements forming the subject-matter of this invention relating to the following particulars:" [then, after specifying certain improvements in the posts and in the upper chords of the truss, the patentees proceed as follows:] "2. The use of bottom chords of thin wrought-iron plates, the eye of which at each end, instead of being cut out of a rolled plate and drilled or forged into shape, is upset under strong compression, so as to give at the eye of the bar a degree of strength equal or superior to that of the bar at any point between the eyes." Then, describing the various parts of the truss in its improved construction, in speaking of the bottom chords (which are those in question) the patentees say: "The bases of the posts, A, are connected at their bases longitudinally by the lower chords, D, of which four may be placed parallel to each other, on each side of each panel. They are made of *thin bars of rolled iron*, of sufficient depth, and *placed on edge*, so as to support the roadway, and are attached to the bases of the posts by the connecting pins, N, which pass through the hole or eye near the end of these bars." Again, in summing up, the patentees say: "The lower chords, D, consist of *wide, thin* rolled iron bars, with enlarged ends, which are made by upsetting the rolled bars by compressing them into the desired shape in moulds into which the heated iron is forced under immense pressure," &c. And then, in order to exclude the idea that they claim the mode of compressing the ends, they add: "We do not claim the upsetting of iron bars in the manner described, nor any peculiar mode of performing the operation, but merely the use of chord-bars for bridges, the eyes of which are thus formed so as to give additional strength to the bar where it is so much needed." The claims are then set forth categorically in the usual manner, the third claim (the one in question) being in these words: "3d, The use for the lower chords of truss frames of *wide and thin* rolled bars with

enlarged ends, formed by upsetting the iron, when heated, by compression into moulds of the required shape, for the purpose of increasing the density, toughness, and strength of the eye of the rod, and enlarging the eye, without diminishing its transverse section, substantially as hereinbefore described."

Here, again, the patentees clearly confine themselves to "*wide and thin*" bars. They claim the use in truss bridges of such bars when the ends are upset and widened in the manner described. It is plain, therefore, that the defendant company, which does not make said bars at all, but round or cylindrical bars, does not infringe this claim of the patent. When a claim is so explicit, the courts cannot alter or enlarge it. If the patentees have not claimed the whole of their invention, and the omission has been the result of inadvertence, they should have sought to correct the error by a surrender of their patent and an application for a reissue. They cannot expect the courts to wade through the history of the art, and spell out what they might have claimed, but have not claimed. Since the act of 1836, the patent laws require that an applicant for a patent shall not only, by a specification in writing, fully explain his invention, but that he "shall particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery." This provision was inserted in the law for the purpose of relieving the courts from the duty of ascertaining the exact invention of the patentee by inference and conjecture, derived from a laborious examination of previous inventions, and a comparison thereof with that claimed by him. This duty is now cast upon the Patent Office. There his claim is, or is supposed to be, examined, scrutinized, limited, and made to conform to what he is entitled to. If the office refuses to allow him all that he asks, he has an appeal. But the courts have no right to enlarge a patent beyond the scope of its claim as allowed by the Patent Office, or the appellate tribunal to which contested applications are referred. When the terms of a claim in a patent are clear and distinct (as they always should be), the patentee, in a suit brought upon the patent, is bound by it. *Merrill v. Yeomans*, 94 U. S. 568. He can claim nothing beyond it. But the defendant may at all times, under proper pleadings, resort to prior use and the

general history of the art to assail the validity of a patent or to restrain its construction. The door is then opened to the plaintiff to resort to the same kind of evidence in rebuttal; but he can never go beyond his claim. As patents are procured *ex parte*, the public is not bound by them, but the patentees are. And the latter cannot show that their invention is broader than the terms of their claim; or, if broader, they must be held to have surrendered the surplus to the public.

The construction which we have felt bound to give to the patent obviates the necessity of expressing any opinion upon the other point made by the court below, namely, that the patents only covered the use of the chords in question in truss bridges, and not the making of such chords, which latter is all that the defendant company is shown to have done.

Decree affirmed.

RAILWAY COMPANY v. STEWART.

1. The court, in construing the contract between the parties to this suit, holds that the company is not bound to deliver the stipulated new bonds until all the construction bonds which are still outstanding shall be surrendered to it, or due proof made of the loss of such as cannot be produced, and adequate security offered to indemnify the company against liability to any adverse claimant.
2. The parties in interest will then be entitled to a performance of the contract by the company, notwithstanding a decree by consent and in part performance of the contract has been rendered by the District Court of the first judicial district of the State of Kansas, sitting within and for the county of Leavenworth, directing a cancellation of the construction bonds and a discharge of the mortgage securing them.
3. The court calls attention to the irrelevant matter and useless repetitions with which the record in this case is incumbered; and, while reversing the decree below, adjudges that the parties pay their respective costs in this court, and refers to rule 52 in admiralty as containing suggestions which may serve as an appropriate guide in making up the record in a case at law or in equity.

APPEAL from the Circuit Court of the United States for the District of Kansas.

The case was argued by *Mr. John P. Usher* for the appellant, and submitted on printed arguments by *Mr. Matt. H. Carpenter* and *Mr. Joseph B. Stewart* for the appellee.