construction should not go beyond and enlarge the limitations of the claim. Merrill v. Yeomans, 94 U. S. 568; Railroad Co. v. Mellon, 104 U. S. 117. In this case Smead's improvement upon Ruttan was in the vault, and not in any of the other elements, and to permit him to omit the pipes and include any openings, although they perform the office of pipes, by which air is introduced into the vault, would give him a larger invention than he made. Railway Co. v. Sayles, 97 U.S. 554. We concur with the circuit court that the patent is not infringed by the use of the girls' closet.

The boys' closet has an additional element in its construction. The flue from the urinal in the play room was conducted into the end of the vault in which the grate was placed for the purpose of ventilating the urinal; the foul air was drawn through the flue into the vault, and out of doors through the chimney, and thereby ventilation was successfully accomplished. The testimony of the defendants' witnesses makes it apparent that this flue is a duct in the exact sense in which the word is used in the patent. It conveys a portion, though probably a small portion, of warm air into the vault, and tends to produce a desiccating result. If no other means was used, this flue would be insufficient, but by its use the defendants have intruded upon the territory covered by the Smead patent, and have infringed its third claim. The patent cannot justly be construed to have reference only to a series of ducts leading from different stories of a building. It is not compulsory that in a building of more than one story the invention should be used in all the stories, or in all the rooms, or in more than one room of a single story. The third claim indicates that the foul-air ducts may convev the air from a single room.

The decree of the circuit court is reversed, with costs, and the cause is remanded to that court, with instructions to enter a decree for injunction against the infringement of the third claim of the patent, and for an accounting and for costs.

FEATHERSTONE v. GEORGE R. BIDWELL CYCLE CO.

(Circuit Court of Appeals, Second Circuit, August 1, 1893.)

- 1. PATENTS FOR INVENTIONS-REISSUE-VALIDITY-PREUMATIC TIRES. The fourth claim of reissued patent No. 11,153, granted March 24, 1891, to John Boyd Dunlop, which covers the combination with the rim of a cycle wheel, and an inflated, expansible tire, of a tubular, nonexpansible confining envelope surrounding said tire, and provided with flaps or free edges turned over and cemented to the inner face of the rim, is invalid, because it seeks to broaden the invention of the original patent of September 9, 1890, by omitting from the combination an element clearly described in the specifications, and included in the claim, namely protective strips of caoutchouc interposed between the edges of the rim and the strengthening folds. 53 Fed. Rep. 113, reversed.

2. SAME-OMISSION OF ELEMENTS. The omission from the claims of a reissued patent of an element of the combination which is clearly a part of the invention described and claimed in the original, and obviously constitutes an efficient and valuable member thereof, will render the reissue invalid, although such element is not indispensable to the device, and its omission would not render the same inoperative.

8. SAME—PROVINCE OF COURTS—REVIEWING COMMISSIONER'S DECISIONS. The courts should not hesitate to review a decision of the commissioner of patents that there has been inadvertence, accident, or mistake justifying a reissue, when the invention claimed in the original is obviously the same as that described in the original application, and when the application for the reissue discloses no explanatory facts adequate to account for the alleged mistakes which are sought to be corrected.

Appeal from the Circuit Court of the United States for the Southern District of New York.

In Equity. Bill by Alfred Featherstone against the George R. Bidwell Cycle Company for infringement of letters patent. The circuit court rendered a decree for complainant. 53 Fed. Rep. 113. Respondent appeals. Reversed.

Francis I. Chambers, for appellant. Saml. A. Duncan, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

WALLACE, Circuit Judge. By the decree of the circuit court, it was adjudged that the fourth claim of the reissued patent No. 11,153, granted to John Boyd Dunlop for an improved wheel tire for cycles, was valid, and had been infringed by the defendant. The defendant contended, and now insists, that the fourth claim of the reissue is void, because it is for a different invention than that covered by the original patent to Dunlop, and because the original patent was surrendered, and the reissue obtained, not to correct a mistake, but merely for the purpose of securing by that claim a patent for a broader invention.

The original patent was for an invention which Dunlop had patented in England March 8, 1889, and embodying an improvement upon an invention patented by him in England in 1888. It was applied for in this country March 11, 1890, and, as appears by the file wrapper, was allowed by the patent office April 7, 1890, in the form asked for, without any amendment to the description or claim re-The final fee was not paid, however, for cited in the application. several months thereafter, and the patent was issued September 9, The patent relates to pneumatic wheel tires for vehicles, es-1890. pecially bicycles, consisting essentially of an annular air cushion, which is secured to the rim of the wheel. Prior to the application for the patent, as appears from earlier patents and publications, tires formed of elastic tubes filled with compressed air, and secured in a variety of ways to the rims or fellies of ordinary wheels, both of bicycles and other vehicles, were old. The tires had been composed of an interior, expansible tube of rubber, inclosed in a nonexpansible strengthening and confining envelope of canvas, both inclosed in an outer envelope, and the tire, as a whole, had been attached to the rim or felly of the wheel in various ways. The invention of the original patent consisted in a new organization of parts which were old in previous pneumatic tires, whereby two improvements were effected,-one in the tire itself,

and the other in securing the tire to the rim or felly of the wheel in a more advantageous way than had been done previously. The latter improvement was accomplished by (1) covering the steel rim of the wheel with canvas; (2) surrounding the edges of this covered rim with strips of caoutchouc, or other elastic substance; and (3) inclosing the rim thus covered and protected in a canvas fold forming part of the nonexpansible envelope of the pneumatic tire. This canvas envelope was made of two folds or layers, one of which was cemented to the inside of the outer inclosing envelope, and the other was cemented to the first layer, and the ends of the latter were made to encircle the edge protectors and rim, and were cemented to the canvas covering of the rim. The nearest approach to this method of fastening is found in one of several United States patents issued to Amos W. Thomas in March, 1889, wherein, as described, the tire is fastened to the rim by bands which surround the tire and rim, and are cemented thereto.

The specification of the original patent describes the invention as follows:

"In carrying out my invention, I employ an external covering, A, composed of a layer or fold of India rubber, which is thickened at that portion which comes in contact with the ground. An inner expansible tube, B, also of India rubber, contains the air or gas under pressure. C is the metallic rim of the wheel, which is somewhat flattened to obtain a large bearing surface, and enveloped with a protective strip, a, of canvas, cloth, linen, or the like. Strips, D, of caoutchouc or other elastic substance, are interposed between the edges of the rim, C, and the folds or layers, b, c, of canvas or linen, hereinafter more particularly referred to, so as to protect the latter from being cut by the edges of said rim, C. A strengthening fold or layer, b, of cloth, linen, or canvas, which is cemented or otherwise affixed to the inner surface of the external covering, A, envelops the inner tube, B, and the rim, C, to which latter it is cemented, or otherwise securely fastened, so as to retain the tire thereon in an efficient manner; a strengthening fold or layer, c, of linen or canvas, being attached to the inner surface of the before-mentioned layer, b, and cemented to the linen or canvas layer, a, encircling the metallic rim, C. enveloping folds or layers of canvas, b, c, effectually resist any undue pressure that may be exerted by the contained air or gas at any particular point, and thus prevent deformation of the tire. The said folds or layers, moreover, serve to effectually maintain the tire in the desired position on the metallic rim, C, of the wheel."

The claim of the original patent was as follows:

"In hollow, air-inflated wheel three for cycles and other vehicles, the combination with an inner expansible tube, B, and outer protective covering, A, of strengthening folds or layers, b, c, of cloth, canvas, or linen, and protective strips, D, of caoutchouo, interposed between the edges of the rim, C, and strengthening fold or layer, b, substantially as and for the purposes herein set forth."

After the patent was granted, and in October, 1890, a corporation, the Thomas Inflatable Tire Company, was organized in this country for the purpose of acquiring certain United States patents for pneumatic tires which had been granted to Amos W. Thomas in March, 1889. Before the application was made for the reissue of the complainant's patent, this corporation had been advertising its rights under the Thomas patents, and warning the public against infringements, and insisting that the pneumatic tires made under the Dunlop patent were infringements; and this was

known to the complainant, who was then about to acquire the Dunlop patent, and he had entered into negotiations with that corporation looking to a purchase of its patents, or some arrangement with it by which any conflicting interests might be united. Pending these negotiations, and in December, 1890, a patent solicitor was employed in behalf of the owner of the Dunlop patents to examine the Thomas patent and other patents, and advise relative to obtaining a reissue. He made an investigation of the records of the patent office, and after doing so prepared, and caused to be forwarded to Dunlop, the application and accompanying papers upon which the reissue was granted. The oath accompanying this application sets forth, in general terms, that the original patent was inoperative and invalid, for the reason that the specification was defective and insufficient; that such defect and insufficiency consisted in the inaccuracies and omissions more particularly pointed out in the statement and specification of errors thereunto annexed; and that the errors arose from accidents and mistakes. In the accompanying statement and specification of errors, the inaccuracies and omissions pointed out in the specification consist wholly of unimportant particulars, but the petitioner states that the claim "does not describe correctly any part of the invention, and does not conform to the specification;" "that he did not examine the specification with such care as to detect the inaccuracies and defects therein;" and "that said inaccuracies and defects. through such inadvertence, entirely escaped his attention." The application for the reissue was filed January 26, 1891, and the reissue was granted March 24, 1891, the new description and claim recited in the application being allowed without any modification by the patent office. Although there are formal changes in the descriptive part of the specification of the reissue, none of them are of any consequence, as they neither omit nor add anything which materially alters the specification of the original. In the place of a single claim in the original patent, the reissue has seven claims. Some of these claims are for inventions which Dunlop was not entitled to patent. The first claim is for his earliest invention in pneumatic tires, which he had patented in England in 1888. The seventh claim, notwithstanding a verbal change, is substantially identical with the claim of the original patent, and, as the parts were described in the original by letters of reference to the drawings, the change was unnecessary.

At the hearing in the circuit court the complainant abandoned any charge of infringement by the machines of the defendant, except as to the fourth and fifth claims, and the court adjudged that the fifth claim was void for want of novelty.

The fourth claim of the reissue is as follows:

"The combination, with the rim of a cycle wheel and an inflated, expansible, tubular tire, of a tubular, nonexpansible confining envelope surrounding the said tire, and formed or provided with flaps or free edges turned over and cemented to the inner face of the rim, as set forth."

It is obvious that the protective strips which are incorporated into the claim of the original patent, but which are omitted in the fourth claim of the reissue, are not an indispensable part of operative fastening devices for securing a pneumatic tire to the rim of the wheel. It is also obvious that they can be omitted from the fastening devices of Dunlop without rendering the other devices inoperative. Yet it is equally obvious that they are an efficient and valuable member of his fastening devices. They prolong the life of the canvas covering of the rim and of the encircling folds, and they prevent the air tube from "nipping" when it is not sufficiently inflated. So far as can be gathered from the description of his invention, he regarded them as a substantive part of If he did not, he failed to indicate it, for cerhis improvements. tainly neither the terms nor the drawing afford any room for such The claim which he asked for and obtained ema suggestion. bodied the parts which the description treated as substantive and valuable, and only those parts. The protective strips were incorporated in it so explicitly and so prominently that no one, even reading it in the most casual manner, could fail to understand It is hardly conceivable that he should that they were a part of it. have misapprehended the meaning of the claim when he made the oath to his original application. Moreover, it appears that the protective strips were a part of his invention as it was patented in England, and that the English patent would not have been infringed by any method or manner of securing a tubular tire to the rim of the wheel in which they were omitted; and it also appears that they were always inserted in the pneumatic tires made under the patent, until after the reissue was granted.

There are cases in which the description of an invention, and the claims sought to be founded upon it, by the applicant for a patent, are so plain and unequivocal upon the face of the application itself that the judicial mind cannot be convinced that he intended to describe and claim any other invention than that for which the patent was granted; and in such cases the courts ought not to hesitate to review the decision of the commissioner upon the question of inadvertence, accident, or mistake, and should refuse to be bound by it, when the record upon the application for the reissue discloses that no explanatory facts or circumstances, adequate to account for the error, were brought to his attention. This seems to be such a case, and the reissue record itself leaves little, if any, room to doubt that there was no error on the part of the patentee to necessitate the surrender of the original patent. But when the fact is recalled that the English patent, the foundation of the original and the reissue, was not for any invention claimed in the reissue which was not secured by the original, and when the circumstances attending the origin and preparation of the application for the reissue are recalled, it seems difficult to escape the conclusion that the original was surrendered, not to correct a mistake. but to obtain a new patent, covering inventions to which the patentee had no right, and which could be used as a sword and a shield in the business competition of rival patent owners.

If, in the description of the invention, the patentee had indicated

that he regarded the protective strips merely as a desirable or preferential feature of his devices, it is not open to doubt that it would have been the appropriate office of a reissue to correct the claim of the original patent by eliminating them from it. But. as is said by a recent commentator, (Rob. Pat. § 562,) the statute which authorizes a reissue is not a remedy for a mistake by the patentee "in his choice and judgment as to what he should attempt to cover" by his original patent. When it can be seen from the description in the original patent that the claim has restricted the invention of the patentee by making that a part of it which he himself only regarded as an incidental or superfluous or an unimportant part of his invention, a case arises for the application of the reissue statute. Where the patent is for a combination in the strict sense, it is sometimes evident that some one of the several devices which are described has no important function in the coaction of the parts, but is merely accessorial and subordinate: and in such a case there is no difficulty in differentiating the parts which the inventor regarded as material from those which he regarded as merely subsidiary, and if the device is specified in the claim as a part of the combination with the others the inference of mistake is clear. In such case it is apparent that the patentee has not, by the claim, secured the real invention of the patent. But in the present case the invention described consisted in assembling several devices, some old and some new, each of which had its office in producing the new and useful result contemplated by the inventor, and the claim corresponding with the description. A patent in which one of those devices is eliminated from the claim is one for a different invention. It has been repeatedly declared by the supreme court that a reissue cannot be permitted to secure any invention which was not described in the original patent; it is confined to securing one which was not only described, but which it was the intention of the patentee, manifest upon the face of the patent itself, to secure thereby. In other words, it must appear by the description in the original patent that it was the purpose of the patentee to secure the thing specified in the claim of the reissue, and a patent cannot be lawfully reissued unless there has been a clear mistake, inadvertently committed, in the wording of the claim. Parker & Whipple Co. v. Yale Clock Co., 123 U. S. 99, 8 Sup. Ct. Rep. 38; Hoskin v. Fisher, 125 U. S. 223, 8 Sup. Ct. Rep. 834; Flower v. Detroit, 127 U. S. 571, 8 Sup. Ct. Rep. 1291; Mahn v. Harwood, 112 U. S. 354, 5 Sup. Ct. Rep. 174, 6 Sup. Ct. Rep. 451. In the language of one of the more recent adjudications of the supreme court upon this question, it is said:

"A reissue must be for the same invention intended to be embraced in the original patent, and the specification cannot be substantially changed, either by the addition of new matter, or the omission of important particulars, so as to enlarge the invention as intended to be originally claimed." Plow Co. v. Kingman, 129 U. S. 299, 9 Sup. Ct. Rep. 259.

We are unable to entertain any doubt that the patentee intended to claim originally just what he did claim; that there was no mistake in the wording of the original claim; and that the reissue was obtained because, upon further consultation and advice, it was concluded that he had erred in judgment in not attempting to make a different and broader claim than the one he conceived to be expedient. He patented what he intended to, and by the reissue sought to patent a broader invention. Applying the settled doctrine of the adjudications of the court of last resort, we must adjudge the claim of the reissue to be void.

The decree of the circuit court is reversed, with costs, and the cause remanded to the circuit court, with instructions to dismiss the bill.

HARMON et al. v. STRUTHERS et al.

(Circuit Court, W. D. Pennsylvania. September 4, 1893.)

No. 2.

1. PATENTS FOR INVENTIONS-INFRINGEMENT-MECHANICAL EQUIVALENTS-RE-

VERSING GEAR FOR STEAM ENGINES. Letters patent No. 248,277, granted to Frank L. Bliss, October 18, 1881, for an improvement in reversing gear for steam engines, by which the vibration produced by the movement of the reversing link is prevented from being transmitted to the elbow lever by means of a slot formed in the upper end of the lifting bar at its connection with the link, are for an invention of a primary character; and a device which accomplishes the same result by elongating the ordinary slot of the reversing link, so that when the elbow lever is at rest on its stop there is a slot in the reversing link itself above the valve-stem pin, infringes the Bliss patent by the substitution of mechanical equivalents.

2. SAME-PUBLIC USE. More than two years before his application for a patent, an inventor, without profit to himself, and for the sole purpose of testing the efficiency of his invention by practical use, placed his device on engines manufactured by his employers, who sold them with a view to experimental use. Held, that there was no public use or sale, within the meaning of the patent law.

In Equity. Bill to restrain infringement of patent. Decree for complainants.

For prior report, see 48 Fed. Rep. 260.

W. Bakewell & Sons and A. Wentworth, for complainants. D. F. Patterson and James C. Boyce, for defendants.

Before ACHESON, Circuit Judge, and BUFFINGTON, District Judge.

ACHESON, Circuit Judge. This suit is upon letters patent No. 248,277, granted October 18, 1881, to Frank L. Bliss, for an / improvement in reversing gear for steam engines, in which the claim is:

"The elbow lever and link having a slotted connection, as described, for adjusting the link, D, in combination with the stop or set screw for relieving the lever from the vibration due to the movement of said link, D, substantially as described."