ported otherwise than by the suggestions of the expert witness, which we cannot regard when the fact, if it was in truth a fact, could be so easily shown by direct evidence. The word "crowd," found in the specification, and so much relied on by the appellant, is at the most only descriptive, and is sufficiently apt to indicate crowding against the taper of the sleeve merely to make a close joint, exactly as the appellant crowds the washer against its "abutment" for the same purpose.

If it be conceded, however, that the appellant does not use the "tapered sleeve," nor the flange projecting out from the side of the wheel, in precisely the forms described in the appellee's patent, the case becomes a question of equivalents. We have discussed this general question so fully in Long v. Manufacturing Co., ubi supra, in Reece Buttonhole Mach. Co. v. Globe Buttonhole Mach. Co., ubi supra (an extreme case one way), and in Ball & Socket Fastener Co. v. Ball Glove Fastening Co., 7 C. C. A. 498, 58 Fed. 818 (an extreme case the other way), that we do not deem it necessary to go over it here. The patent at bar lies between the two cases last cited; and it clearly is not shut out from the expression of the supreme court, cited by us in Reece Buttonhole Mach. Co. v. Globe Buttonhole Mach. Co., at page 962, 61 Fed., and page 198, 10 C. C. A., that "the range of equivalents depends upon the extent and the nature of the invention." This invention did not relate to a matter of mere simplicity of form, or of mere ronvenience, or to cheapening the cost. It involved a new and useful function, although, perhaps, in view of what the record shows of the art, in a limited field of operation. It is therefore entitled to some aid from the doctrine of equivalents; and we cannot conceive of any case where it could be so entitled unless it is in the present one. where the departures are only in matters of form, and of such character as to suggest that they are studied evasions of those described in the claim in issue.

As we have reached the same result as the learned judge who sat in the circuit court, and by substantially the same process of reasoning, we might well have excused ourselves if we had merely adopted his opinion as ours; but, as the case presents some new phases which have not been exhibited by any appeal we have heretofore disposed of. it seems useful to state our views at length. The decree of the circuit court is affirmed, and the costs of appeal are adjudged to the appellee.

SESSLER et al. v. BORCHARDT.

(Circuit Court of Appeals, Second Circuit. March 19, 1897.)

PATENTS-INFRINGEMENT-SLIPPER SOLES. The Sessier patent, No. 525,746, for an insole for slippers, made of leather, paper, and wool, and used as an outsole for knit slippers by turning the thickness of leather over the thickness of paper, and uniting it to the braid to which the knit slipper is to be attached, is not, in view of prior devices, infringed by the slipper of the Borchardt patent, No. 539,337, which has a cord running under stitches in the turned-over edge of the leather, for attachment to the knit upper by stitches under it. 78 Fed. 482, affirmed. Appeal from the Circuit Court of the United States for the Southern District of New York.

This was a suit in equity by Arnold Sessler and Arnold Sessler & Co. against Samuel Borchardt for infringement of the Sessler patent, No. 525,746, for an "improvement in insoles for slippers," etc. The alleged infringing slipper was made according to letters patent No. 539,337, issued May 14, 1895, to the defendant. The circuit court dismissed the bill (78 Fed. 483), and the complainants have appealed.

The opinion of the circuit court (WHEELER, District Judge) was as follows:

This suit is brought upon patent No. 525,746, dated September 11, 1894, and granted to Arnold Sessler, for an insole for slippers, used as an outsole for knit slippers, and made of leather, paper, and wool, "by turning the thickness of leather at its edge over the thickness of paper, and uniting to the turnedover portion of the leather the braid to which the knitted portion of the slipper is to be attached; the paper portion of the insole serving, as in the prior insoles, to carry the lamb's wool." The claims in question are for: "(1) The combination, in an insole, of a thickness of leather, a thickness of another material, as paper, and a tape; said thickness of leather being turned over the thickness of paper, and the tape being attached to said inturned portion of leather,—substantially as set forth. * * * (3) The combination, with a slipper upper, of an insole provided with a thickness of leather having a turnedover edge, a tape attached to said overturned edge, said knitted upper being attached to the tape, substantially as set forth." The alleged infringement has a cord running under stitches on the turned-over edge of the leather, for attachment to the knit upper by stitches under it. The defenses are prior pat-ents and structures. The tape answers the purpose here of the welt in a handsewed shoe, which is first sewed to the upper, and then to the flat, thick out-sole of the shoe, instead of to the turned-over edge of the flexible outsole of the slipper, as the tape is. A prior patent shows such a turned-over, flexible out-sole, with an upper sewed to it, in a bathing slipper; and prior scuffs show such a one with a straw welt sewed to it, and a straw upper sewed to that. So a turned-over sole was not new. Neither was connecting such a sole by a welt to the upper new, and the tape is the same as a welt. In the scuffs seems to be the precise combination of the third claim. These soles are, however, sold without the uppers; and these scuffs are said, as exhibited whole, in argument, not to show these separate soles of the first claim. But the construction of the soles and welt is as well shown with the uppers attached as without them. If this would not be an anticipation, the defendant's sole would not seem to be an infringement. Bill dismissed.

Daniel H. Driscoll and James A. Hudson, for appellants. J. J. Kennedy and M. B. Philipp, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

PER CURIAM. Decree of circuit court affirmed, with costs, on decision of circuit judge.

ELGIN CO-OPERATIVE BUTTER-TUB CO. V. OREAMERY PACKAGE MANUF'G CO.

(Circuit Court of Appeals, Seventh Circuit, May 3, 1897.)

No. 318.

1. PATENTS-CONSTRUCTION.

Patents, like other writings, are to be construed by the terms in which they are expressed, except as limited by the prior art, and an attempt to restrict them to the scope of the inventor's understanding of the device is unwarranted.

2. SAME-INVENTION-MACHINE FOR TRUSSING TUBS.

Claim 2 of the Corcoran patent, No. 294,764, for a "machine for trussing tubs," covering a combination of recessed standards, with truss hoops, removable bottom, and driving weight, if upheld at all, must be restricted to the particular construction described. The right to drive staves through trussing hoops resting in recesses is covered by the prior art, and the insertion of a removable bottom requires no invention. *Held*, therefore, that the claim is not infringed by machines made in accordance with the Ulrich patent, No. 356,217, or the Glader & Smith patent, No. 477,195.

Appeal from the Circuit Court of the United States for the Northern Division of the Northern District of Illinois.

This appeal is from a final decree, entered on January 31, 1896, awarding damages for infringement of letters patent in pursuance of an interlocutory decree of July 31, 1890, whereby the patent was declared to be valid and to have been infringed. The following statement of the case, taken from the opinion of the circuit court at the first hearing (43 Fed. 892), is sufficient for the present purpose: "This is a bill in equity seeking an injunction and ac-counting by reason of the alleged infringement of patent No. 294,764, granted March 11, 1884, to Matthew Corcoran, for a 'machine for trussing tubs.' The patentee describes his invention in the specification as follows: 'My invention has reference to improvements in machinery for trussing or setting up tubs. having more special reference to the manufacture of butter tubs, which latter are now in great demand as a means for packing, preserving, and transporting butter. Such improvement consists mainly in novel mechanism for supporting the truss-hoops horizontally, at proper distances above each other to receive the staves, and the employment of a drop weight to force the staves into such truss-hoops while the latter are supported in certain relative positions.' The device covered by the patent consists of three standards placed at equal distances apart in the periphery of a circle, and in the inner faces of which recesses are formed for the truss hoops to rest upon. These recesses recede from each other so that the upper ones hold the larger sized truss-hoops, as the tub is dressed small end downwards. These recesses are so arranged as to hold the truss-hoops in place, and below these recesses, marked '1' in the drawings, is another recess, marked '2' in the drawings, for holding a removable bottom to the machine. There is also a drop bottom; that is, a bottom which is hung upon a lever, and so arranged as that, by an action of the foot upon a treadle, it may be pressed upward to hold the ends of the staves while they are being put in place. After the staves are properly arranged, a weight suspended over the machine is dropped upon the upper ends of the staves for the purpose of driving the staves to place. The patentee describes the operation of his ma-chine as follows: "The operator places his foot on the outer end of the lever, bringing such end down upon the flor, and, by the same motion, forcing the movable bottom up against the under edge of the lower truss-hoop, the trusshoops having been placed in their several positions in the recesses, 1. The staves are then placed within the truss-hoops around the entire inner circumference of the latter. The upper edge of the lower truss-hoop is provided on its upper edge with an inward bevel, to assist in guiding the lower ends of the staves into proper position. The operator's foot is then withdrawn from the lever, and the bottom thereby drops slightly away from the lower truss-hoop. The drop weight is then permitted to fall upon the upper ends of the staves, forcing the latter tightly into such truss-hoops.' Infringement is insisted upon only as to the second claim of the patent, which is: '(2) The combination of the standards, A, provided with recesses, 1 and 2, on the inner faces thereof, the truss-hoops, B, fitted to rest in such recesses, 1, the removable bottom, I, fitted to rest in such recess, 2, the weight, G, arranged to be suspended over and dropped upon the upper ends of the staves, C, within such hoops, and the rope, H, substantially as shown, and for the purposes specified.' The defenses insisted upon are (1) want of patentable novelty; (2) that defendants do not infringe."

John G. Elliott, for appellant. James H. Pierce, for appellee. Before WOODS, JENKINS, and SHOWALTER, Circuit Judges.

WOODS, Circuit Judge (after stating the facts as above). The contention of the appellant that the Corcoran patent is invalid, because it claims distinct machines, one a setting-up machine, and the other a trussing machine, is based upon no assignment of error which is adapted to raise the question, and is otherwise untenable. The so-called "setting up" and the "trussing" are no more than successive stages of the same process, and are so treated in the specification of the patent. See Hogg v. Emerson, 11 How. 587, 605. The attempt to show by the testimony of Corcoran, the patentee, that the patent embraced something which he did not invent, and to restrict the patent to his understanding of the scope of the invention, was unwarranted and improper. Even if he had been a party to the suit, he could not have been bound by a mistaken judgment which he might have been led to declare of the scope or character of his patent, and, as against the assignee of his title, his testimony in that particular was wholly incompetent. Except as controlled by the prior art, letters patent, like other writings, are to be construed and interpreted by the terms in which they are expressed.

The proposition that the bottom plate, I, which is described in the claim as removable, is in fact not removable, rests on the erroneous assumption that the specification of a patent should be controlled by the drawing. The contrary is nearer true. A drawing is not to be regarded as a working plan, unless it is so stated in the specification; (Caverly's Adm'r v. Deere & Co., 24 U. S. App. 617, 13 C. C. A. 452, and 66 Fed. 305); and any apparent inconsistency with the specification, which a skillful mechanic may overcome without the exercise of inventive power, is of no significance.

The controlling question of the case is whether the second claim of the patent in suit shows invention. The court below was unable to find in the mass of testimony adduced any such combination as that shown in the patent. "There is proof in the record," says the opinion, "of vertical standards to hold the truss-hoops and of bottoms to receive the ends of the staves, but the proof fails to show a combination of recessed standards with truss-hoops and the removable bottom and the driving weight, as claimed in this patent." According to that statement, if it be closely analyzed, the differences between the combination of the claim and the recognized prior art are three, namely: (1) Recesses in the standards; (2) removability of the bottom plate; and (3) the driving weight. The contention of the appellee here is less specific. It is asserted that "nowhere in the prior art did a machine exist in which all the staves were driven home simultaneously through fixed trusshoops, and leveled against a bottom sustained in definite relation to the hoops." And again it is said: "The radical distinction in the Corcoran advance lies in the fact that he drives the staves while the truss-hoops are stationary, whereas in the prior devices, with one exception, the truss-hoops are forced along while the staves are stationary." The removable bottom, it will be observed, is not essential to either of these propositions. The "one excep-tion" referred to is the Deering patent No. 194,335, which, it is said, is for a "machine to pound on the stave ends," in which the hoops are set one at a time (it being necessary to readjust after each setting the dependent standards which clasp the barrel in the interval while the piston is performing its stroke), and do "not level against the abutment plate in unison with the simultaneous tightening of all the hoops, which is Corcoran's central idea." These propositions of counsel and the view declared by the court alike can be accepted only by assuming or conceding the further contention that the trussing of "butter tubs," as distinct from "barrels," began with Corcoran, and that the earlier patents for barrel-trussing devices are not a part of the prior art to be considered. "The Corcoran construction," it is said, "while simple and efficient as a means of trussing tubs or half-barrels, would have been wholly inefficient for trussing barrels, for the reason that more than half of the barrel would project over the top of the Corcoran standards. and with the flare that the staves have, within said standards, the upper ends of the barrel staves, if seated in the Corcoran truss, would radiate to such an extent as to render impracticable the use of a driving weight, and at the same time the upper halves of the staves, being wholly unsupported, would yield in an outward direction to the blows from such weight, and therefore would prevent the compact seating of the stayes within the truss hoops. shown in the Corcoran invention as applied to butter tubs." This may all be conceded, but it does not follow that the transition from barrel trussing to the trussing of half barrels or tubs was at all difficult, or involved the exercise of more than mechanical skill. To illustrate: One of the drawings of the Dann patent, No. 289,393, represents barrel staves projecting more than half their length above the standards, and above the uppermost trussing hoop, and radiating to such an extent as to render impracticable the use of a driving weight; but nothing could be more evident than that, if the upper halves of the staves there shown were cut off, the driving weight could be used, and that the result of the operation, without any change whatever in the form of the device, would be a half-barrel or tub. Other patents in evidence, notably the Wycoff, No. 6,813, and the Bayley, No. 190,730, show machines for trussing barrels which without essential alteration could be used for trussing tubs, and their construction is such that if they do not, part