sion, in short, concedes the correctness of the charge as an exposition of the law, but challenges its correctness as applied to the facts disclosed on the trial. On referring to the bill of exceptions, it will be seen that the patentee testified that he had endeavored to fix the royalty at \$100; that he had in some instances collected that amount as royalty; that he had sold his driers at \$250, and that they had cost him \$92; that his profits were \$158, of which he estimated \$58 to be the profits of the unpatented portions, leaving \$100 as profit on the invention which was said to be infringed. He further testified that, in his judgment, that sum was a fair and reasonable royalty. There was evidence that the established royalty on the prior machine of Alden, a much more expensive drier, made under a patent containing claims similar to those of the plaintiff's patent, was \$1,000, while its cost was but \$250; and that the lifting device in the Alden patent was made at an expense of \$75, while that of the patent in controversy cost but \$17. It is difficult to conceive how there could have been more direct proof concerning the amount of a reasonable royalty in a case such as this. The estimate of the patentee placing it at \$100 is, it is true, an expression of his opinion; but it is an opinion based to some extent upon figures and estimates. He evidently disclosed all the information he possessed upon the subject,-the cost of manufacture, the selling price, so far as he had sold, the profit, and his estimate of the proportion of the profit that should be attributable to the infringed invention. In this class of patents there are necessarily no data from which the value of a royalty can be calculated with mathematical certainty. The damages here, like damages in many other classes of cases, are calculable upon such evidence as it is in the nature of the case possible to produce.

The plaintiff was clearly entitled to damages for the infringement. If there had been an established royalty, the jury could have taken that sum as the measure of damages. In the absence of such royalty, and in the absence of proof of lost sales or injury by competition, the only measure of damages was such sum as, under all the circumstances, would have been a reasonable royalty for the defendant to have paid. This amount it was the province of the jury to determine. In so doing, they did not make a contract for the parties, but found a measure of damages. McKeever v. U. S., 14 Ct. Cl. 414; Ross v. Railway Co., 45 Fed. 424; Royer v. Coupe, 29 Fed. 371; Cary v. Manufacturing Co., 37 Fed. 654.

We find no error, and the judgment of the court below is affirmed, with costs to the defendant in error.

CHAMBERS-BERING-QUINLAN CO. v. FARIES.

(Circuit Court, S. D. Illinois. November 4, 1893.)

1. PATENTS-SEEDING DEVICES.

Claims 2, 4, 6, and 7 of the Barnes patent, No. 230,604, and claim 2 of the Faries patent, No. 259,677, relating to machines for forming interlocking eyes in wire chains for operating the seeding devices in check-row corn planters, *held* valid and infringed.

2. SAME-VALID COMBINATION.

The law is well settled that a valid combination claim may be drawn including a less number of parts than are required for the complete operation of a machine.

This was a bill in equity by the Chambers-Bering-Quinlan Company against Robert Faries to restrain infringement of a patent.

Bond, Adams, Pickard & Jackson, for complainant.

Crea & Ewing and E. B. Stocking, for defendant.

ALLEN, District Judge. This suit is based on patents No. 230,-604, to Barnes, dated August 3, 1880, and No. 259,677, to Faries, dated June 20, 1882. Infringement is alleged in respect to the second, fourth, sixth, and seventh claims of No. 230,604, and the second claim of No. 259,677. Both of these patents relate to machines for forming interlocking eves in wires or wire chains for operating the seeding devices in check-row corn planters. The eyes not only form the wire into a chain having long links, but they are so formed that each eye is of a size sufficient to operate an arm of the seeding device, and they are spaced so as to recur at the points where it is desired to deposit the seed for each hill of corn. The chain The patents are for machines for forming this speis not claimed. cial chain with rapidity and accuracy, and the claims in controversy are:

"(2) The sliding bolt L, spring, l, and standard, K, in combination with the rotating head, M, standard, B, and stud, b, substantially as described, and for the purpose specified."

"(4) In combination with a stud, b, for holding the ends of the wire, a head, M, located above the stud, b, which may be rotated to force the wire around the stud and form interlocking eyes thereon, as and for the purpose specified."

"(6) The sliding blocks, F, F', and wheels, I, J, in combination with standard B, and stud, b, and clamping jaws, C', C", substantially as and for the purpose specified.

"(7) Treadle or lever, G, cords, g, and weighted cords, f', in combination with sliding blocks, F, F', and twister wheels, I, J, substantially as and for the purpose set forth."

The Wight patent, No. 126,365, is relied on as anticipating the second claim, but as this Wight machine, for forming umbrella ribs, wholly lacks the three elements first named in said second claim, it cannot contain the combination claimed by Barnes in this claim.

The Garrard patent, No. 199,637, is relied on as anticipating the fourth claim, but as this patent does not show any rotating "head, M, located above the stud, b," and does not form interlocking eyes, it wholly lacks an important element and feature of said fourth claim.

The defense relied on for the sixth claim is that it is for an inoperative combination. Anticipation is not asserted. This objection is not well taken, as the law is well settled that a valid combination claim may be taken for a less number of parts than are required for the complete operation of a machine. Forbush v. Cook, 2 Fish. Pat. Cas. 668, Fed. Cas. No. 4,931; Inspirator Co. v. Jenks, 21 Fed. 911; Jenkins v. Gurney, 23 Fed. 898; McDonald v. Whitney, 24 Fed. 600.

Patent No. 112,868, to Van Vleck, is relied on as anticipating the seventh claim. In the machine of this patent, for coiling bed springs, a single section is coiled at each end, and the wire operated on is the means for bringing the sliding blocks together. This machine does not have the twister wheels, nor the treadle lever and cord for bringing the sliding blocks together. Norton's patent, No. 106,951, is also referred to. This machine is for coiling wire bells in scroll forms. It does not have the two sliding blocks, nor the two twister wheels of this seventh claim. Other patents were offered in evidence by the defendant, but as they were not urged at the hearing I have not considered them.

The second claim of complainant's patent, No. 259,677, is:

"(2) In a machine for forming interlocking eyes and knots on check-row chains for corn planters, the combination of the hollow shafts, J, J', arranged opposite each other, the springs, s, arranged therein, and the hollow spindles, L, L, arranged within the shafts and acted on by the said springs, and having their projecting ends constructed to turn the ends of the wires, said spindles having independent longitudinal movement within, but revolving with the shafts, substantially as described."

Putnam's patent. No. 187.776. is relied on as anticipating this claim. This patent is for winding short wires along the length of a long or main wire, leaving the ends of the short wires to project for barbs. A machine for coiling barbs on a main wire must necessarily be a different machine than one which has only one wire cut into lengths to operate on, and to interlock the ends so as to form knots, and also permit the folding up of the chain thus formed. Neither machine can do the work of the other. The Putnam machine has only one hollow shaft. It does not have any hollow spindles, and it does not have the combination or operation of the second claim. No machines similar to those of the complainant's patents have been shown in the prior art, and the claims are all clearly valid. The evidence shows that the defendant became familiar with this class of machines while building them for the complainant, and he was enabled to make mechanical changes. such as would occur to a skilled mechanic in the use of equivalents. but upon the evidence of the experts, and a comparison of the machines, my conclusion is that the defendant's machines infringe each of the claims in controversy.

Let a decree for the complainant be entered in accordance with the prayer of the bill.

PRATT et al. v. WILCOX MANUF'G Co. (Circuit Court, N. D. Illinois. December 29, 1893.)

1. JUDGMENT-RES JUDICATA-WAIVER BY STIPULATION.

The conclusiveness of a judgment sustaining a patent is waived by a stipulation fixing the amount of damages, and providing that if no appeal is prosecuted defendant shall not be estopped from raising again any questions necessary to a full determination of the merits in any suit then pending, or thereafter to be brought.

2. PATENTS-INFRINGEMENT-ESTOPPEL BY CONTRACT.

An agreement by two firms manufacturing under patents relating to the same subject-matter that neither will interfere with the other in the manufacture of the inventions set forth in their respective patents, and