

HOE AND OTHERS *v.* KNAP AND OTHERS.¹*Circuit Court, N. D. Illinois.*

March 22, 1886.

1. PATENTS FOR INVENTIONS—PRINTING—MACHINES.

Letters patent No. 269,159, of December 12, 1882, to Luther C. Crowell, for a sheet-delivering mechanism for printing-machines, construed, sustained as to the sixth claim, and *held* infringed.

2. SAME.

So far as appeared from the proof in this case, Crowell was the first to superimpose the sheets, as they follow each other from a web printing-press, by causing them to travel in different pathways of equal lengths, and to stop or retard the advance sheet until the following sheet or sheets is or are brought abreast of it, when they move at a common rate of speed to a point where they come together; and he is therefore entitled to protection against the use of equivalents by others.

3. SAME—RICHARD M. HOE PATENT, NO. 211,848, FEBRUARY 4, 1879, FOLDING—MACHINES.

Infringement was charged of the fifth claim of this patent, which was for “the combination of brake-arms, rest-blocks, and supporting carrying-tapes, substantially as described.” *Held*, the true construction of this claim required that the folding blade or rollers, described by the patent, be read into this claim, and that under this construction the defendants did not infringe.

4. SAME.

The defendants did not use the stopping or retarding device of the patent for the purpose it described, and they had the same right as patentee to take another element from the older art, and use it in combination with the elements he described, for another purpose, in their machines.

5. SAME—VOID REISSUE.

The first claim of the Hoe & Tucker patent (reissue No. 8,801, of July 15, 1870,) printing-machines is void because an unwarranted enlargement of the original patent, which was granted December 1, 1868, and of the first reissue, which was granted May 30, 1871.

6. SAME.

The second claim of the original of the Hoe & Tucker reissue sued on, and the corresponding claim of the first reissue, included the flies or piling mechanism described; but the first claim of the reissue sued on does not, and it is therefore void.

7. SAME—PATENTABILITY.

In view of the prior state of the art, the court doubted whether this patent was not void for want of patentable novelty.

8. SAME—PRACTICE—INJUNCTION.

Where the owner of a patent had never made, used, or sold to others to be used, the invention covered by the patent, an injunction, in the interlocutory decree, against its use by an infringer was refused, on his giving bond to secure any damages which might be awarded on final hearing.

9. SAME—PATENTEE MUST USE OR ELSE PERMIT OTHERS TO USE.

A patentee is bound either to use the patent himself, or allow others to use it on reasonable and equitable terms.

In Equity.

Offield & Towle and *Munson & Philipp*, for complainants, (*B. F. Thurston*, of counsel.)

West & Bond, for defendants.

BLODGETT, J. Complainants, by this bill, seek an injunction and accounting for the alleged infringement by defendants of three patents 205 owned by complainants; the first being patent No. 269,159, granted December 12, 1882, to Luther C. Crowell, for “a sheet delivering mechanism for printing—machines;” the second being patent No. 211,848, granted to Richard M. Hoe, on February 4, 1879, for “an improvement in paper—folding machines;” and the third being reissued patent No. 8,801, granted to complainants as assignees of Richard M. Hoe and Stephen D. Tucker, July 15, 1879, for an “improvement in printing—machines;” the original patent having been granted December 1, 1868. All these patents, it is averred in the bill, have been duly assigned to complainants, and no question is made as to the title to either patent.

The Crowell patent is for a device whereby the sheets issuing successively from a web printing mechanism are brought together so that one may overlie the other. In modern newspaper printing it is found desirable to make a paper of eight or more pages, and as the sheets of four pages each pass successively from the printing rollers the problem is to cause one or more of the sheets following the first to overtake and be laid upon the first, so that when they reach the folding mechanism they will be folded together as one product. In the specification it is said:

“The invention consists, broadly, in causing the rear sheet or sheets, during some portion of its or their travel through the delivery mechanism, to move at a greater speed than the advance sheet, so that the sheets shall be caused to overlap each other, and eventually be imposed upon one another in proper register.”

This inventor was not the first who superposed one sheet upon another before they reached the folder, as prior inventors had accomplished the same result, one device being such an arrangement of tapes and rollers as to cause the first sheet to travel by a longer pathway, while the following sheet took a short pathway, and overtook the first at the point where the respective pathways came together. Another device caused the first sheet to be stopped and held upon a cylinder until one or more following sheets had been brought up and placed upon the first, when the cylinder rolled forward and delivered the sheets one upon the top of the other. The distinguishing feature of the Crowell device is that the sheets are conducted by pathways of equal length, and that after the first sheet has passed into its separate pathway, it is either held stationary, or its motion retarded, until the following sheet has got abreast of it in its own pathway, when the holding or retarding device releases the first sheet and they move on together to the point where their pathways

unite, when the second sheet is brought on the top of or superposed upon the first sheet, from whence they proceed to the folder, where they are folded together into a paper of eight pages or more, according to the number of sheets brought together. The elements of this device are two or more pathways of equal length, formed of tapes and rollers properly arranged for that purpose; a switch located at the entrance to these pathways, 206 automatically operated, so as to direct the first sheet in the pathway where it is to be detained or retarded, and the following sheet, when but two are to be brought together into the pathway, where it will run without obstruction; and a retarding device which consists of two rollers with portions of their surfaces cut away, so arranged that as the first sheet passes between them it will be held still, or its motion slowed, until the following sheet in the other pathway arrives abreast of it, when the first sheet is released, and the two move at a common speed to a point where the pathways unite.

The patent contains seven claims, but infringement is charged only as to the sixth, which is as follows:

“The combination with a series of pathways of equal lengths, of means for guiding the successive sheets into different pathways, and means for retarding the speed of the advance sheet until the following sheet is abreast thereof, substantially as described.”

The defenses as to this patent are (1) that the patent is void for want of novelty; (2) that Crowell is limited by the prior art to the special devices shown in his patent, and the defendants do not use these devices; (3) that defendants do not infringe.

As to the first defense, I think the only conclusion from the proof in the record is that Crowell was the first to superpose the sheets as they follow each other from a web printing—press by causing them to travel in different pathways of equal lengths, and stop or retard the advance sheet until the following sheet or

sheets is or are brought abreast of it, and they then move at a common rate of speed to a point where they come together. Other machines had carried sheets in pathways of unequal length, whereby the advance sheet, traveling by a longer route, reached the point where the two pathways met at the same time with the following sheet, which took a short road, whereby one was laid upon the other; but none had accomplished the work of superimposition by sending the sheets which were to be laid together on pathways of equal lengths, before Crowell's invention. It is true that machines older than Crowell's device, and used for various purposes connected with the work of printing and delivering printed sheets, directed the sheets in different channels or pathways by means of switches, and the record also shows older devices for slowing or stopping the movement of sheets; but none of them show an organization of parts like Crowell's to do the work of superposing by the same means, and I think there can be no doubt that it required inventive genius to so arrange these parts as to perform the desired work, at the time Crowell entered the field. After he had produced his combination of co-acting parts, it may be very easy to find all these parts or elements separate in the older art, and, perhaps, doing in some older machines just what each separate element of Crowell's combination does in his machine,—that is, switches directing the sheets alternately into different pathways, and brakes or brake-rollers holding back or retarding the movement of a sheet in its 207 pathway; because Crowell did not invent switches nor pathways for sheets, formed by rollers and tapes, nor retarding devices, but he brought them together to co-operate in producing a result which had not been produced before by the same elements; and it is no answer to his claim as an inventor to say that the same result had been produced before by some of the elements of his

combination acting with others, but in a substantially different way.

The two parts of the second point of defense may well be considered together. Defendants contend that their machines do not contain two pathways, and hence that they do not infringe. Their machine shows an organization of parts whereby the sheets, as they leave the common pathway which brings them from the printing rollers, are directed, by the operation of what is called a "dividing finger," alternately "over and under" a small roller and plate or bar. This roller and bar keep the upper tapes lifted from the lower, and aid the tapes in carrying the sheets over the roller and bar, and as the roller does not quite touch the lower tapes, it does not interfere with or retard the sheets passing under it. A rock-shaft is provided with fingers, which are made to fit against the bar or plate to hold the rear end of the advance sheets until the following sheet has caught up with it, and at this point to release the detained sheet, and allow the two to move on together. This description is given by one of the defendants, Mr. Kahler, of the construction and mode of operation of defendants' machine. What he calls the "dividing fingers," which are located at the entrance to this pathway, are nothing more nor less than a switch substantially identical in its structure and operation with Crowell's switch, "16." Its function is to "direct the advancing sheets over and under the roller and plate or bar." This roller divides Mr. Kahler's pathway into two pathways; the sheets which go over the roller and bar take one pathway, and those which go under the roller and bar take the other pathway. It is true the pathways are closer together than those shown in Crowell's arrangement, and are formed with a less number of tapes and rollers, but they are separate ways, nevertheless, and are intended to and do enable the following sheet to come along—side of or abreast of the advance sheet, which must be done by one

sheet being deflected into a different pathway from that taken by the other.

The diameter of the roller and bar measures the distance between those pathways; one sheet goes over and the other under the roller. When the tail or rear end of the advance sheet reaches the bar or plate it is caught between the fingers of the rock—shaft and the plate, and held there until the following sheet has passed under the roller to a point directly underneath the first, when the first sheet is released, and the two proceed together, their paths uniting immediately beyond the bar which has separated them. The rock—shaft, with its fingers arranged to be brought down upon the bar or plates, so as to catch the advance sheet and hold it until the following sheet overtakes 208 it, is, as appears by the proof, a known equivalent for the cutaway rollers used in the Crowell patent. Indeed, a rock—shaft with fingers is but a roller with all of its periphery cut away except the fingers; and there can be no doubt that the defendants' rock—shaft does in the defendants' machine just what is done by the cutaway rollers of the Crowell machine, and no more. So, too, the roller which divides the pathway of the two sheets, and over and under which the switch directs the sheets as they reach it, is an adjunct to, and forms a part of, the pathway in place of some of the tapes shown in the Crowell machine; but this does not make any substantial difference, because a roller for that purpose only takes the place of other devices shown by Crowell. It therefore seems to me that the defendants' machine embodies the entire elements of the Crowell device,—the switch, the two pathways of equal lengths, and the mechanism for detaining the advance sheet until the following sheet in its own separate pathway has been brought along—side or abreast of it,—and these respective elements perform the same function and no other in the defendants' machine that are performed by the corresponding

elements in the Crowell device. It therefore seems to me that the allegation of infringement is fully sustained by the defendants' own description of the structure and mode of operation of their machine, nor do I find, in a large mass of prior patents and devices shown in the record, any device or combination which should limit the Crowell patent to the special devices shown therein; that is, that he must be confined to just such a switch, and just such a detaining device, as he shows, and is not protected against known equivalents for those parts. On the contrary, I conclude, as I have already said, that he was the first to combine these elements and produce the given result, and is therefore entitled to protection against the use of equivalents by others.

This being a combination of old devices for the purpose of producing a given result, we must look from the claim back into the description of the patent as found in the specification and drawings for the elements of the combination which produce the result, and a reference to this description shows clearly the elements for guiding the successive sheets into different pathways, and the means for retarding the advance sheets which the inventor intended to employ, and also several variations to produce modified results. In other words, what is covered by the claim is made entirely clear by the specifications and drawings, and this claim of the patent is amply sufficient, under the rule laid down in *Silsby v. Foote*, 14 How. 218, and *Fay v. Cordesman*, 109 U. S. 408, S. C. 3 Sup. Ct. Rep. 236.

It is urged, however, that the claim as stated does not cover the result,—that is, the superposing of one sheet upon another,—as it leaves the sheets to go where they may after the second has been brought along—side of the first. But it seems to me a sufficient answer to this part of the argument to say that both the Crowell and the defendants' 209 machines are

organized for the same purpose,—to bring the sheets abreast of each other for the purpose of being superposed. If defendants, after bringing their sheets together, did not superpose them, and did not bring them abreast of each other for that purpose, but for some other purpose, and sent them off in different ways, there might be much more force for the defendants in this branch of the argument; but they do what Crowell does, and for the same purpose, and, as I am compelled to find, with his identical means.

The Hoe patent, No. 211,848, is for a “folding—machine.” The inventor says:

“My invention relates to folding—machines, supplied at a high rate of speed with sheets to be folded, and particularly to that class of folding—machines adapted to work in conjunction with a perfected printing—press, which prints from a web of paper, cuts it into sheets of proper size, and delivers them as rapidly as cut and printed. Where these sheets pass directly into a folding—machine, they move with such velocity that great difficulty is experienced in arresting them in such relation to the folding mechanism as to be folded accurately, upon a given line, without buckling. The object of my invention is to overcome this difficulty, and it consists in sheet—controlling mechanism by which the movement of the sheet with respect to the folding mechanism is so governed as to secure its position in relation to the folding mechanism at the time when said folding mechanism operates to double it, as will be more fully hereinafter described and claimed.”

He then describes a rest—block placed just over the tapes under which the sheet passes, located directly over the folding rollers, and the rock—shaft with brake—arms, and the vibrating fingers attached, arranged so as to be brought to bear against the rest—blocks by a movement of the shaft; and as the sheet is brought rapidly under the tapes it is caught

at the rear end by the action of the rock—shaft between the brake—arms and the rest—blocks, and its progress either retarded or wholly stopped, whereby the buckling or wrinkling of the sheet by bringing its forward end at a high rate of speed against the stop is prevented.

The defendants are charged with infringing the fifth claim of this patent, which is as follows: (5) The combination of brake—arms, rest—blocks, and supporting carrying—tapes, substantially as described.

Without taking time to analyze and discuss the large amount of testimony, both of experts and as to the prior art, which has been put into the record, I am of opinion that the true construction of this claim requires that the brake—arms, rest—plates, and carrying—tapes are to co—operate with the folding—blades or rollers. In other words, that the folding—blades and rollers are to be read into the claim; and under this construction the defendants do not infringe, as the only place where they stop or retain their sheets is in the double pathway, for the purpose of superimposition. This stopping or retarding device in this patent is not used by defendants in their machine for the same purpose as used by Hoe in his patent; and as stopping or slowing devices by means of brake—arms and rest—blocks, and by nipping 210 rollers, was old in the art at the time of the Hoe patent, and he took and used it as one of the elements of his combination, the defendants had the same right to take it from the older art, which had become public property, and use it for any other purpose in their machines.

The Hoe & Tucker patent, No. 8,801, is for a device where flat, single sheets are fed into a cylinder printing—press from two tables, and after being printed are conducted by means of a switch into different pathways, so that the sheets are delivered alternately from opposite ends of the machine. At the time the

original patent was granted, in December, 1868, a difficulty had been encountered by the fast presses then in use in delivering the printed sheets as rapidly as they could be printed, and the purpose of this device was to furnish two flies to the press, so as to divide the work of laying off the printed sheet between the two flies. In order to supply the two flies, two pathways or routes were arranged, with tapes and rollers, and the stream of sheets, as they issued from the printing rollers, was divided, each alternate sheet going to one, and the following going to the other, end of the machine, and to the flies at those ends. The patentees describe the device and its purpose in their specifications as follows:

“This invention consists, mainly, in a mechanism whereby sheets are successively carried onward for delivery, with which co-operate automatically moved switches, that operate to direct alternate sheets conveyed within their range of action into separate conducting channels. It also embraces the combination with said vibrating switches of cylinders constructed of separate pulleys placed on a common shaft.”

They then described the construction of parts of the mechanism, and the operation of the printing devices, and say:

“In the manner above described, the sheets of paper are taken alternately from the feeding-tables by the same feeding-in mechanism, so that the machinery can be carried at the desired velocity to print sheets on both sides as fast as the said sheets can be presented by operatives from the two feeding-tables, 20, 30. * *
* The sheets of paper will be delivered from such a printing-machine too rapidly to be laid in one pile by the mechanism usually employed for that purpose, and known as the ‘fly,’ as such mechanism has heretofore applied.”

They then proceed to describe the means by which the sheets as printed are alternately guided into

different channels so as to deliver to flies located at each end of the mechanism, and say:

“In this way the sheets of paper are taken and alternately delivered in opposite directions, so as to be separated, which sheets may be delivered in two piles alternately, on one and then on the other side, either by two separate fly—frames, or the equivalent thereof, a double—acting fly—frame.”

The reissued patent contains five claims, of which only the first is alleged to be infringed, which is as follows:

“(1) The combination with a sheet—conducting mechanism, whereby sheets are successively carried onward for delivery; of automatically moved switches, that operate to separate alternate sheets, and direct them into separate conveying channels,—all substantially as described.” 211 The complainants insist that the device covered by this claim is found in the defendants’ machine; that is, that defendants’ machine shows the sheet—conducting mechanism by which the sheets are successively carried forward for delivery, and automatic switches that direct the alternate sheets into separate channels.

Several grounds of defense are interposed by the defendants, but, from the view which I take of this patent, I do not deem it necessary to consider them at all. The first defense is that this claim of the reissued patent is void, because it is not found in the original patent, but is an enlarged and different claim from any found in that patent. It is contended by the complainants that the claim now under consideration is substantially the same as the second claim of the original patent. This old second claim reads as follows:

“(2) Separating the sheets by mechanism, substantially as described, so that they would be delivered in files, substantially as set forth and specified.”

This patent was reissued May 30, 1871, as reissue No. 4,400, and in that reissue the second claim was stated as follows:

“(2) Separating or changing the direction of printed sheets of paper, so that they may be automatically piled in two or more piles, or in more than one pile, by mechanism constructed and operating substantially as described.”

The apparent object of this reissue was to correct, so far as this claim was concerned, a clerical error in using the word “files” instead of “piles.” It will be seen that in the second claim of both the original and the first reissue the claim is for something more than changing the direction of the printed sheets of paper; but they must be changed so that they may be automatically piled in two or more piles, which provision necessarily required the claim to include the flies or other devices for piling the sheets at the ends of the machine. By the reissue now under consideration, which was made July 15, 1879, the whole idea of piling, or any other purpose in which the flies or any other device is used, is left out, and the claim covers simply a sheet—conducting mechanism in combination with automatically moving switches that operate to separate alternate sheets, and direct them into separate conveying channels. The proof shows that this patent was applied for in June, 1864, at which time folding devices in connection with fast printing—presses were little used, if known; but the printed sheets were delivered from the flies to be folded by hand. In the progress of the improvements upon printing mechanism these folding devices became an essential attachment to all fast—operating presses, and the evident purpose of the reissue of 1879 was to make this first claim cover any device by which the sheets were directed by automatic switches into different channels, whether for the purpose of being delivered to flies or to be carried to the folding

mechanism. At all events, it seems very clear to me that this reissue is an enlargement of the original claim, and even of the second reissue, because I think there can be no doubt that the second claim of the original and first reissue included the flies or piling mechanism. I am therefore ²¹² of opinion that this reissue is void, under the rules of the supreme court in *Miller v. Bridgeport Brass Co.*, 104 U. S. 350; *Mahn v. Harwood*, 112 U. S. 354; S. G. 5 Sup. Ct. Rep. 174; *Wollensak v. Reiher*, 22 Fed. Rep. 651.

It may, also, I think, be well doubted whether this patent is not void for want of novelty. The proof shows, and the claim in question in fact admits, that automatically moved switches, for the purpose of directing sheets into different channels, were old at the date of this patent; and that a switch organized and arranged to change the direction of the sheets of paper alternately as they came from the printing—press into different channels could not be made the subject of a patent in combination with those channels, except where some specific result or purpose was obtained thereby. The switch might operate to drop the sheets in different piles as they fell from the press, or throw them into shutes, or even into different channels, but unless it did something more than merely throw them into different channels for the purpose of being conveyed away or delivered at different points, it would hardly seem to be a patentable arrangement, in view of the state of the art. I therefore conclude that the defendants infringe the sixth claim of the Crowell patent, as alleged in the bill, and that they do not infringe the Hoe patent, No. 211,848; and that the first claim of the Hoe & Tucker reissue No. 8,801 is void.

The proof on the application for a preliminary injunction was to the effect that the complainant, the owner of this patent, had never used it, and never constructed a printing—press with the Crowell device. The argument is that the owner of this patent was

a very large manufacturer of printing—presses; that they did not manufacture and keep printing—presses in stock, but only make them to order; and that they have received no order as yet to make a press containing the Crowell device. The question, therefore, arises whether the court will grant an injunction in favor of the owner of a patent who has not, after a reasonable time, put it into use, against another who is using it. I think, under a patent which gives a patentee a monopoly, he is bound either to use the patent himself or allow others to use it on reasonable or equitable terms, and as I refused an injunction on the motion before the hearing, I shall refuse an injunction in the interlocutory decree, and allow the defendants to continue to use the patent on their giving bond as they have heretofore.

A decree may be prepared accordingly.

¹ Edited by Charles C. Linthicum, Esq., of the Chicago bar.

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