

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

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."

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