

BACKUS WATER MOTOR CO. *v.* TUERK AND  
OTHERS.

*Circuit Court, N. D. Illinois.*

July 10, 1883.

1. PATENTS FOR  
INVENTIONS—INFRINGEMENT—NOVELTY.

The pocket device shown in the sixth claim of reissued patent No. 5,590, dated October 7, 1873, granted to Isaac Hyde, assignor of O. J. Backus, for an “improvement in combined water-wheels and sewing-machines,” (original patent having been issued September 24, 1872, No. 131,616,) is void for want of novelty, having been clearly shown in the provisional specifications of James Pilbrow for English letters patent in 1857.

2. SAME—WATER MOTORS.

The first claim in letters patent No. 146,120, dated January 6, 1874, issued to O. J. Packus for an “improvement in water motors,” is void for want of novelty, and the second therein made is not infringed by the Tuerk water motors, claimed to be an infringement of the Backus patents.

In Equity.

*Munson & Phillip*, for complainant.

*P. C. Dryenforth*, for defendants.

BLODGETT, J. This is a bill to restrain the alleged infringement of reissued letters patent No. 5,590, dated October 7, 1873, to Isaac Hyde, assignor of O. J. Backus, for an “improvement in combined water-wheels and sewing-machines,” the original patent having been issued September 24, 1872, No. 131,616, and of patent No. 146,120, dated January 6, 1874, issued to O. J. Backus, for an “improvement in water motors.” The defendants are charged with the infringement of the sixth claim of the reissued Hyde patent, and of the first and second claims of the Backus patent. The defenses set up are—*First*, that the patents in question are void for want of novelty; *second*, that the reissued Hyde patent is void, by reason of its describing a different invention from that

contained in the original patent; and, *third*, that the defendants do not infringe.

The sixth claim of the Hyde patent is as follows: “A vertically revolving water-wheel, in combination with an inclosing case, which has a projecting spent-water pocket, D, to prevent the spent water from acting on the wheels, substantially as described.” The drawings and model of the Hyde patent show an elongation downward of the wheel-casing, so as to give room for the escape of the spent water, without its huddling or otherwise retarding the motion of the wheel: and this feature of the Hyde device is specifically covered by the sixth claim of the reissued patent, it not having been claimed in any form in the original patent. The defendants manufacture a water motor, the wheel of which is inclosed in a metal case, in one form of which there is an elongation of the case downward, so as to give room for the free escape of the spent water. Their other form of wheel-case is nearly circular. The wheel, however, in the circular case is set eccentrically to the center of the case, so that a larger space is left below the wheel than above it, and from this larger space the 351 spent water escapes freely through an opening in the bottom of the case.

It is obvious that any person entering upon the construction of a water-wheel inclosed in a case like either of these devices must make some ample provision for the escape of the spent water in such a way that it will not clog or impede the motion of the wheel; and the most natural way would be to provide a space for the escape of the spent water at the bottom of the wheel, after the water had performed its function as an impelling power. It would hardly seem to require invention to leave space enough in this case below the wheel to allow the water to escape freely, so as not to interfere with the action of the wheel; and this was what Hyde did, and what he assumed to cover by what he calls his spent-water pocket in the

sixth claim of the reissued patent. It is not necessary, perhaps, to say, in disposing of this case, whether a claim of this character, if Hyde had been the first to use such a device as a spent-water pocket, would be valid as coming within the field of invention or not, because I find in the proof sufficient evidence to satisfy me that the pocket device shown in the Hyde patent is old.

It is clearly shown in the provisional specifications of James Pilbrow, in evidence in this case, for English letters patent, produced from the files of the United States patent-office, dated in 1857. Pilbrow's patent was for a water motor in principle the same as the Hyde patent, which he described in his own language, as follows: "This wheel is inclosed in a metal case, having an outlet at F. This case may be supported in any way found most convenient for its practicable application by supports or bearers of wood. Into this case will project the nozzle of a pipe having a cock upon it. This nozzle being pointed tangentially to the wheel, as shown, and being connected with a water-main or pipe, when the water is under high pressure, and the cock being open, the jet of water issues into the cavities of the wheel, urging it around in the direction of the arrows, and the waste or expended water escapes by F," which is the escape-pipe located in the corner of the case opposite the inlet-pipe.

The drawings attached to this specification show a wheel-casing with a wheel revolving therein, with an induction-pipe located so that the jet of water strikes the buckets at the lower side of the wheel, and the water-pocket or escape at the corner of the case opposite the injection-pipe. This wheel is located eccentrically in the case, so that the upper part of the wheel revolves near the top of the case, leaving a much larger space below the bottom of the wheel, and in form of construction is very similar in principle to that adopted by the defendant's second form of

wheel. With this device known to the art, to say nothing of the various other devices which are shown by the proof in regard to the construction of water-meters and casings for water-wheels, where the same principle is to some extent shown, it seems to me there was, and could be, no invention in making 352 the Hyde water-pocket as an almost necessary adjunct to the successful operation of any water motor, operated upon the principle involved in his device. The pocket was old, and hence unpatentable.

The defendants are charged with infringing the first and second claims of the Backus patent of January 6, 1874. These claims read as follows:

“(1) The single casing-plate, A, having an induction nozzle and waste-water pocket and a discharge nozzle formed thereon, substantially as and for the purpose described. (2) The annular chamber, M, between the plates, A and K, surrounding the elongated bearings for the wheel-shaft, C, substantially as described.”

In other words, Backus, in his first claim, seeks to cover the idea of making a casing for his wheel of two plates, in one of which plates was cast the opening for the induction and escape pipes.

It seems to me that if any mechanic had been directed to make a wheel-case of two plates, which should contain water-tight openings for the induction and escape pipes, he would have found it almost a necessity to cast the openings upon one of the plates; and I think there is no invention whatever involved in the idea of casting these openings upon one plate, instead of casting half, or a portion, in one, and the other part in the other. As to the second claim in the Backus patent, it is sufficient to say that I do not find in the defendant's wheel-case the part covered by this claim. It is true, the Tuerk casing contains an elongated bearing for the support of the wheel-shaft, but it does not contain the annular chamber, M, which is specifically covered by this claim; that is, a chamber or

space overhung by the eyebrows, D, for the purpose of preventing the water, which dripped or followed along the inner surface of the plates, from running out along the journals. The defendant's axle-bearing is elongated from the surface of the casing both inwardly and outwardly, projecting into the annular space, and there is no equivalent for the eyebrows, D, in connection with this annular chamber. The original Hyde wheel showed the inlet-pipe upon the top of the casing, so that the jet of water would enter at the top of the wheel, and acted, or was expected to act, partly by impact and partly, perhaps, by the gravity of the water, as it was carried in the buckets around from the point where it was received by the wheel. The water passing in at the top of the wheel, there was, perhaps, some occasion for making provision to prevent the drip of the water through the opening for the journals. In practical application, however, of the principles of the Hyde motor, as shown in the drawings of the Backus patent, the jet of water was introduced near the bottom of the wheel, and it is undoubtedly, from the construction of the wheel, expected that the wheel will be substantially clear of the water by the time the buckets have passed the lowest point in the periphery of the wheel. It may be, however, that it was still deemed best to make some provision for preventing the 353 water, which might drip down the sides of the casing, from flowing out through the journals of the wheel. Whatever may have been the purpose of the inventor, it is clear that Backus made a specific provision for this annular chamber, which he supposed would perform a certain function in his machine. The defendant may be said to have an annular chamber, but I do not find it to be the same annular chamber that is described in the Backus patent, and I therefore find that there is no infringement of the second claim of this patent.

I am, therefore, satisfied that this bill should be dismissed for want of equity: *First*, because the water-pocket of the Hyde patent is old, and even if it were not old, I should doubt its patentability; and, *secondly*, because the first claim of the Backus patent does not involve invention, and is not worthy of being the subject-matter of a patent; and, *thirdly*, because the defendant does not infringe the second claim of the Backus patent.

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