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CASES ADJUDGED

IN THE

SUPREME COURT OF THE UNITED STATES,

AT

OCTOBER TERM, 1887.

LAWTHER *v.* HAMILTON.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE EASTERN DISTRICT OF WISCONSIN.

Argued October 28, 31, 1887. — Decided January 9, 1888.

Letters-patent No. 168, 164, issued September 28, 1875, to Alfred B. Lawther for a new and improved process for treating oleaginous seeds was a patent for a process consisting of a series of acts to be done to the flaxseed and, construed in the light of that knowledge which existed in the art at the time of its date, it sufficiently describes the process to be followed; but it is limited by the terms of the specification, at least so far as the crushing of the seed is concerned, to the use of the kind of instrumentality therein described, namely, in the first part of the process, to the use of powerful revolving rollers for crushing the seed between them under pressure.

Moistening the flaxseed by a shower of spray in the mixing-machine, produced by directing a jet of steam against a small stream of water, does in fact "moisten the seeds by direct subjection to steam," and thus comes within the clause of Lawther's patent.

A license from the plaintiff in error to the defendants in error cannot be implied from the facts proved in this case.

BILL IN EQUITY to restrain infringements of letters-patent. Decree dismissing the bill. Complainant appealed. 21 Fed. Rep. 811. The case is stated in the opinion of the court.

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Mr. John W. Munday for appellant. *Mr. Edmund Adcock* was with him on the brief.

Mr. Charles E. Shepard for appellee.

MR. JUSTICE BRADLEY delivered the opinion of the court.

The appellant, Alfred B. Lawther, filed his bill in the court below against the appellees, alleging that they were infringing a patent granted to him on the 28th of September, 1875, for certain improvements in processes of treating oleaginous seeds, and praying for an account of profits and damages, and an injunction. The Circuit Court, being of opinion that the patent could not be sustained as a patent for a process, (which it was claimed to be,) dismissed the bill. We are called upon to revise this decision.

In the specification of the patent the patentee states that the object of his invention is "to improve the process of working flaxseed, linseed, and other oil seeds, in such a manner that a greater yield of oil is obtained at a considerable saving of time and power in the running of the crushing, mixing, and pressing machines, while also a cake of superior texture is produced."

The specification proceeds as follows: "Hitherto it has been the practice to crush the oil seeds between revolving rollers, and completing the imperfect crushing by passing them under heavy stones known as the edge-runners or mullers, under addition of a quantity of water, the crushed and moistened seed being then taken from the muller-stones and stirred in a heated steam-jacketed reservoir preparatory to being placed into the presses for extracting the oil.

"This process has been found imperfect in regard to many points, but mainly on account of the over-grinding of portions of the seed and the husks or bran when the seeds were exposed for too long a time to the action of the muller-stones, so as to form a pasty mass and produce an absorption of oil by the fine particles of bran, while on the other hand the under-grinding, by too short an action of the stones, rendered the

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presses incapable of extracting the full amount of oil from the seed.

* * * * *

“ My process is intended to remedy the defects of the one at present in use, and consists mainly in conveying the oil seeds through a vertical supply-tube and feeding-roller at such degree of pressure to powerful revolving rollers that each seed is individually acted upon, and the oil-cells fully crushed and disintegrated. They are then passed directly, without the use of muller-stones, to the mixing-machine to be stirred, moistened, and heated by the admission of small jets of water or steam to the mass, and then transferred to the presses.

“ The oil seeds are by my new process first conveyed to a hopper and fluted seed-roller at the top of an upright feed-tube of the crushing-machine, by which the seeds are fed, under suitable pressure, to revolving rollers of sufficient power, which run at a surface speed of about one hundred and fifty to two hundred feet per minute.

“ The pressure on the seeds in the feed-tube is necessary, as the oil seeds would otherwise not feed readily into rollers revolving under great pressure. The oil seeds are thereby compelled to pass evenly and steadily through the rollers, which have, therefore, a chance to act on all of them and break the oil-cells uniformly without reducing any portion to a pasty condition. The bran is also left comparatively coarse, so that it shows the nature of the seed after pressing.

“ The muller-stones and their over or under grinding of any portion of the seeds are entirely done away with by this mode, which makes not only the machinery less expensive, but produces also a saving of power required in running the same. The crushed seeds are next placed in a steam-jacketed reservoir of the mixing-machine, where they are stirred, moistened, and heated by perforated revolving stirrer-arms, which throw jets of water or steam into the mass so as to thoroughly permeate and mix the same. The crushed and moistened mass is transferred to the presses for the extraction of the oil, which operation requires less power on account of the uniformity of the mass, produces a greater yield of oil, and furnishes an

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improved quality of oil-cake, or residue, of open-grained, flaky nature, capable of being split in regular pieces at right angles to the direction of pressure."

Having thus described his invention, the patentee states his claim to be "the process of crushing oleaginous seeds and extracting the oil therefrom, consisting of the following successive steps, viz., the crushing of the seeds under pressure, the moistening of the seeds by direct subjection to steam, and, finally, the expression of the oil from the seed by suitable pressure, as and for the purpose set forth."

The purpose and effect of the invention claimed by the patentee as a new process, and the argument against the validity of the patent as a patent for a process cannot be better or more clearly stated than is done in the opinion of the court below, pronounced by Judge Dyer, 21 Fed. Rep. 811. We quote therefrom as follows: "The proofs show, and in fact it is undisputed, that formerly, in the process of extracting oil from flaxseed, the seed was subjected to the crushing and disintegrating action of the muller-stones, which consisted of two large and very heavy stone wheels mounted on a short horizontal axis, and attached to a vertical shaft. By the rotation of this shaft the stones were caused to move on their edges shortly around in a circular path upon a stone bed-plate, with a peculiar rolling and grinding action, upon a layer of flaxseed placed on the bed-plate. This was the usual mechanical appliance in connection with the operating movement of the muller-stones. By this means such portions of the seed as came in contact with the muller-stones were reduced to a complete state of pulverization. To facilitate the disintegrating action of the muller-stones, the seed was generally first more or less crushed by passing it through one or more pairs of rollers, thus better preparing it for the rubbing and grinding action of the muller-stones. The further treatment of the seed required the application of heat and moisture, and this was accomplished in various ways. Sometimes the heat and moisture were applied by a steaming device before the seed was crushed by the muller-stones; sometimes the seed was moistened when it was under the action of the muller-stones by

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sprinkling water upon the layer of seed beneath the stones, the heat being applied afterwards by a separate operation. At other times both heat and moisture were applied after the seed had been run through the mullers, and was in the form of meal in the heater. As the last step in the process the seed thus crushed and disintegrated, and in moist and warm condition, was usually placed in haircloth mats or bags, and subjected to hydraulic pressure, by which means the oil was extracted. This was the state of the art, and this the usual process when the complainant obtained his patent."

The court then states the process set out in the appellant's patent, and, after some observations thereon, proceeds to say:

"The crushing of oleaginous seed, so that ultimately it may be in condition for the application of hydraulic pressure, was always a step, and, necessarily the first step, in the process of extracting the oil therefrom. As we have seen, that step was formerly accomplished by means of rollers and muller-stones. The complainant ascertained, by practice, that in crushing the seed the tearing, pulverizing action of the muller-stones was injurious, and so he dispensed with that mechanical operation in the crushing step of the process, and employed the rollers alone. He thereby simply omitted one of the instrumentalities previously used in the first stage of treatment of the seed. This was undoubtedly a useful improvement, but it was not the invention or discovery of a new process. Each step in the process existed and was known before; namely, crushing the seed, beating and moistening it, and, finally, the application of hydraulic pressure. What the complainant accomplished was a change in mechanical appliances and operation, by which an existing process, and each step thereof, were made more effective in its results. For this he may have been entitled to a mechanical patent. . . . He discovered that more advantageous results were attainable by dispensing with the use of muller-stones; and that these results were also promoted by the improved construction of the rollers and other mechanical appliances for heating and moistening the seed, is quite apparent. The discovery or invention was not of a new series of acts or

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steps constituting a process, but only of certain mechanical changes in carrying into effect the well-known old steps of the process."

The view thus taken by the court below seems to us open to some criticism. If, as that court says, and we think rightly says, the omission of the muller-stones is a real improvement in the process of obtaining the oil from the flaxseed; if it produces more oil and better oil-cakes, and it is new, and was not used before; why is it not a patentable discovery? and why is not such new method of obtaining the oil and making the oil-cakes a process? There is no new machinery. The rollers are an old instrument, the mixing machinery is old, the hydraulic press is old; the only thing that is new is the mode of using and applying these old instrumentalities. And what is that but a new process? This process consists of a series of acts done to the flaxseed. It is a mode of treatment. The first part of the process is to crush the seed between rollers. Perhaps, as this is the only breaking and crushing of the seed which is done, the rollers are required to be stronger than before. But if so, it is no less a process.

The evidence shows that, although the crushing of the seed by two horizontal rollers, and then passing it, thus crushed, under the muller-stones, was the old method commonly used, yet that, for several years before Lawther took out his patent, a more thorough crushing had been effected by the employment of four or five strong and heavy rollers arranged on top of one another in a stack, still using the muller-stones to grind and moisten the crushed seed after it was passed through the rollers. The invention of Lawther consisted in discarding the muller-stones and passing the crushed seed directly into a mixing-machine to be stirred, moistened, and heated by jets of steam or water, and then transferring the mass to the presses for the expression of the oil by hydraulic or other power.

The machinery and apparatus used by Lawther had all been used before. His only discovery was an improvement in the process. He found that, by altogether omitting one of the steps of the former process — the grinding and mixing under the muller-stones — and mixing in the mixing-machine

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by means of steam, a great improvement was effected in the result.

Why should it be doubted that such a discovery is patentable? It is highly useful, and it is shown by the evidence to have been the result of careful and long-continued experiments, and the application of much ingenuity.

By the omission of the millers greater care may be necessary on the part of the workman in carrying on the operations, especially in watching the moistening and mixing process so as to produce the proper moisture and consistency of the mass before subjecting it to hydraulic pressure. But though it be true that the new process does require greater care, and even greater skill, on the part of the workman than was formerly required, this does not change its character as being that of a process, nor does it materially affect its utility.

The only question which, in our view, raises a doubt on the validity of the patent, is, whether it sufficiently describes the process to be followed in order to secure the beneficial results which it promises. The patentee, when on the witness-stand, stated that the invention was perfected on the 2d day of June, 1874; that it was the result of a long series of experiments which were not entirely successful until that date. His account of it is thus elicited, on his cross-examination:

“57. When did this invention, as you claim it, as you describe it in this patent, first take tangible and practical shape in your mind as a whole process?

“A. Complete and perfect in 1874.

“58. What time?

“A. Between the 31st of May and the 2d of June.

“59. What was the particular improvement that produced the change in results at that time?

“A. It was the perfecting of all of the improvements, the harmonious working of all the changes that we had made in the matter; most of the changes had taught us something, and when we learned it all we knew it.

“60. What particular thing brought about that change at that time?

“A. I don’t know that I could locate any particular thing of any importance or magnitude.

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“ 61. What did you do different on the first or second of June or thereafter from what you had done on the 30th of May or theretofore ?

“ A. I have answered that before as near as I can. I only know it was the culmination of all previous efforts, our knowledge, and our apparatus.

“ 62. Was the change caused by anything more than your men’s increased practical skill and experience in working seed in that new way ?

“ A. Added to the apparatus, yes, sir ; that was just it exactly. We couldn’t have done it without the proper appliances, and with the proper appliances we couldn’t have done it without the knowledge ; the two things come together. The whole thing was a series of infinitely small steps.

“ 63. Wasn’t the apparatus the same on the 30th of May and after the 2d of June ?

“ A. I have no record of any experiment or change having been made during that time, nor do I recollect of any changes. It is possible that it was precisely similar.

“ 64. Isn’t that your best recollection, that it is similar ?

“ A. I have no recollection about it one way or the other. One of our greatest difficulties was the uniform moistening of the seed. We changed the moistening apparatus in a great many different ways. Some of them involved the delay of a day, some of them an hour, some of them a few minutes. Some such changes as that might have been made in the time spoken of.

“ 65. No change was made in the rolls in that time, was there ?

“ A. Not that I know of.

“ 66. Nor in the heater apparatus or in the presses at that time ?

“ A. No ; we didn’t change the body of that heater ; probably not the presses.

“ 67. On the 30th day of May, and some time previously, didn’t you crush the seed under rolls as the first step ?

“ A. Yes.

“ 68. And then moisten it ?

“ A. Yes.

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“69. And then heat it?

“A. Yes.

“70. And then extract the oil by pressure in the presses?

“A. Yes; some of it; all that we did extract.

“71. Are not those the same steps in the process of making oil that you used on the 2d of June, and ever since?

“A. That is the process to-day.”

From this statement it is apparent that the beneficial result is due, not only to a proper degree of crushing of the seed in the rolls, but to a proper and uniform moistening of the crushed material in the heating machine before it is subjected to pressure. The question is, whether the patent sufficiently describes the operation to be performed in order to accomplish these results.

After a careful consideration of the specification of the patent, and in view of the principle of law, that it is to be construed in the light of that knowledge which existed in the art at the time of its date, we are satisfied that it does sufficiently describe the process to be followed. Every step of this process was already understood, although not connected in the manner pointed out in the patent. The following things were known and used before the granting of the patent, to wit: *First*, the crushing of the seed between powerful revolving rollers, fed thereto by a supply-tube and feeding-roller, so as to pass in a sheet of uniform thickness between the rollers. *Secondly*, the moistening, mixing and heating of the crushed mass by means of steam and water in a mixing machine. *Thirdly*, the pressure of the material thus prepared, in moulds, by means of hydraulic power. These several steps being well known in the art when the patent was applied for, required no particular explanation. The patentee had only to say to the oil manufacturers of the country what he did say, namely: Crush your seed evenly and sufficiently between powerful rollers as heretofore; and, then, instead of passing it under the muller-stones, as you have heretofore done, transfer it immediately to the well known steam-mixing machine, and moisten and mix it equably and sufficiently for pressing. Every oil manufacturer in the country would understand him. They

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would also understand that it might require additional care and skill to make the new process work successfully. It is evident that they did understand him, and that the manufacture of linseed oil, and oil-cakes, has ever since been greatly improved and facilitated by the invention.

But whilst we are satisfied that the invention is that of a process, it is nevertheless limited by the clear terms of the specification, at least so far as the crushing of the seed is concerned, to the use of the kind of instrumentality described, namely, in the first part of the process, to the use of powerful revolving rollers for crushing the seed between them under pressure. The claim cannot have the broad generality which its terms, taken literally, might, at first sight, seem to imply. But limited as suggested, it seems to us sustainable in law.

It is true that the description also calls for the use of a vertical supply-tube and feeding roller. The latter is probably essential as a means of distributing the flow of the seed in a sheet of even thickness to the rolls. But the vertical supply-tube is evidently an incidental arrangement, suited to one position of the rollers, namely, where a pair of rollers are set side by side. Where they form a pile, on top of one another, a vertical tube would be inapplicable. In such case the equivalent would be a slanting tube, or inclined plane. The vertical tube is clearly not an essential part of the instrumentality used, and constitutes no limitation of the process.

The appellees also contend that they do not (in the words of the claim) "moisten the seeds by direct subjection to steam." It is proven, however, that they do moisten the seeds by a shower of spray in the mixing machine, produced by directing a jet of steam against a small stream of water. This is within the claim of the patent. The specification describes the process of moistening the seeds as follows: "they are then passed [after being crushed] directly, without the aid of muller-stones, to the mixing machine to be stirred, moistened, and heated by the admission of small jets of *water or steam* to the mass." Again: "the crushed seeds are next placed in a steam-jacketed reservoir of the mixing machine, where they are stirred, moistened, and heated by perforated revolving stirrer-

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arms which throw jets of *water or steam* into the mass," &c. Then the claim is for three successive steps, viz.: the crushing of the seeds under pressure, the moistening of the seeds by direct subjection to steam, and the expression of the oil by suitable pressure. These words are to be read in the light of the explanations in the descriptive part; and thus read, it is apparent that the meaning of the claim is, that the crushed seeds are to be moistened and heated by the use of steam, or steam and water, immediately after coming from the rollers, without any aid from muller-stones. This is precisely what the appellees do.

One of the defences set up is, an implied license. It seems that Lawther has another patent for some improvement in the stack of rollers now commonly used for crushing the seed, and supplies them to order through a foundryman by the name of McDonald. The appellees purchased a set of these rollers from McDonald with the knowledge and consent of Lawther. These rollers were returned on account of some imperfection in the material; but the frame was retained, and the appellees procured similar rollers made elsewhere. They contend that by this transaction Lawther gave his consent to their use of his process. We do not think that there is sufficient evidence of any such consent. The use of the rollers did not necessarily involve the use of the process, and there is no proof that anything was said about the process.

Other points were raised which we do not deem it necessary to discuss. We cannot but think that Lawther discovered a new process of manufacturing oil from seeds, and that he was entitled to a patent therefor; and we are of opinion that the patent in suit, construed as we have suggested, is a good and valid patent. We are also of opinion that the appellees infringe the patent, and that they have not shown any legal defence to the suit. It follows that the appellant is entitled to a decree for an injunction and an account of profits and damages, as prayed in the bill.

The decree of the Circuit Court is, therefore, reversed, and the cause remanded with instructions to enter a decree for the appellant, and take such further proceedings as may be in conformity with this opinion.