

LAWTHER *v.* HAMILTON AND ANOTHER.

Circuit Court, E. D. Wisconsin. June 2, 1884.

PATENTS FOR INVENTIONS—LAWTHER PROCESS
FOR TREATING OLEAGINOUS SEEDS.

Patent No. 168,164, granted to Alfred B. Lawther, September 28, 1875, for an improvement in processes of treatment of oleaginous seeds, compared with other methods in use previous to the granting of such patent, and *held*, that the Lawther patent cannot be sustained as a patent for a process.

In Equity.

Munday, Evarts & Adcock, for complainant.

Davis, Riess & Shepard and *Fred. C. Winkler*, for defendants.

DYER, J. This is a suit to restrain the alleged infringement by the defendants of a patent granted to complainant, September 28, 1875, No. 168,164, for an improvement in processes of treating oleaginous seeds. In the specifications 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 specifications proceed 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 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 in the presses for extracting the oil. This process has been found imperfect in regard to many points, but mainly on account of the overgrinding 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 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 the 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 the 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 812 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 then 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 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.”

Various grounds of defense to the bill are interposed, only one of which it seems necessary to consider, namely, that which disputes the validity of the patent as a patent for a process. 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 seeds 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 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 813 placed in hair-cloth 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. Stating his improvement in the mode of treating the seed most favorably for the claim he makes under his patent, it consists in first crushing the seeds by the pressure of revolving rollers, but without the grinding or triturating action of the muller stones, so that, as it is claimed, each seed and each oil-cell is crushed without pulverization, and without destruction of the hulls beyond the bursting and flattening of the same. Then the seed thus crushed is subjected to heat and moisture, the moisture being applied in the form of finely separated jets of water or steam. And, as a last step, the material thus prepared is placed in pervious mats or moulds, and subjected to pressure in a suitable hydraulic press. By this process, it is claimed that greater certainty is attained in suitably

crushing the entire mass of seed, and also that, from a given quantity of seed, a larger flow of oil is produced than from an equal quantity subjected to the action of muller stones; and it must be admitted that the proofs tend to sustain this claim.

The main improvement alleged is that the invention dispenses with the use of muller stones. While this is claimed as a process, there is no description given in the specifications of the vertical supply tube, the feeding roller, the revolving rollers, the mixing machine, the steam jacketed reservoir, or the muller stones; and we think there may be a question whether there is a sufficient description of the means used to effect the process which is claimed as the complainant's invention. Then the claim is the process of crushing oleaginous seeds and extracting the oil therefrom by three steps successively: the crushing of the seeds under pressure, the moistening of the seeds by direct subjection to steam, and finally expressing the oil from the seeds by suitable pressure, as and for the purpose set forth. This would seem broad enough to embrace every method of extracting oil from flaxseed-known in the prior state of the art, and it is perhaps doubtful whether a claim so general and indefinite is valid. But without deciding these points, having seen what was the state of the art before the complainant obtained his patent, and, conceding everything contained in the patent itself, what new patentable process can it be said the patentee discovered or invented? The alleged invention seems to us only to consist in the omission of the muller stones as one of the means of applying the necessary pressure or crushing force to the seeds, and the use of the mullers was previously but part of one of the steps that always had to be taken in preparing the seed for the extraction of oil therefrom. It may be true that, by the omission of the muller stones, certain injurious effects upon the seed produced by the alleged grinding

or tearing action of the stones are avoided. But this would seem to be due rather to a change in mechanical appliances, than to the discovery of a new and original process, 814 in the sense in which that term must be here considered and understood. 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, heating 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. It is claimed that the new thing discovered by Lawther was that the hulls or shells of the flaxseed could be utilized to form channels by which to convey the oil out from the mass of prepared seed; which result, it is said, was attained by omitting the muller stones and using the rollers in the first step of crushing the seed. But if such a result was produced by dispensing with the muller stones, it does not follow, we think, that this was the invention of a new process. The oil finally extracted from the seed was the product of an old process, the

better results being attributable to a change in the mechanical appliances employed in the first step of the process; namely, the crushing of the seed. No new step was discovered by the patentee. According to the specifications in his patent, first, revolving rollers were employed, then muller stones, in the first essential step of crushing the seed. 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 steps constituting a process, but only of certain mechanical changes in carrying into effect the well-known old steps of the process.

For these reasons we are of the opinion, notwithstanding the very able briefs submitted by counsel for the complainant, that the patent in question cannot be sustained as a patent for a process.

Bill dismissed.

Drummond, J., concurred.

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