

BLAKE *v.* ROBERTSON.ROBERTSON *v.* BLAKE.

1. Reissued letters-patent No. 2,145, granted to Eli W. Blake, Jan. 9, 1866, for an improvement in machines for crushing stones, and extended June 15, 1872, were not anticipated by those granted Sept. 4, 1849, No. 6,690, to Hobbs & Brown, for crushing ice, nor by those granted Jan. 3, 1854, No. 10,365, to James Hamilton, for an ore-crusher.
2. The court sustains the validity of said letters-patent to Blake, and finds that they have been infringed by the respondent.
3. In an action for the infringement of letters-patent, damages must be proved, and the burden of proof is upon the complainant.
4. In this case, no license fee charged by the complainant is shown, although it appears that he made a profit of forty dollars per inch on the width of the jaws of the machines sold by him. They, however, embraced inventions covered by patents other than that for the infringement of which this suit was brought. *Held*, that, in the absence of proof to show how much of that profit was due to such other patents, and how much was a manufacturer's profit, he is entitled to nominal damages only against the respondent.

APPEALS from the Circuit Court of the United States for the Eastern District of New York.

The facts are stated in the opinion of the court.

*Mr. H. T. Blake* for Blake.

*Mr. B. E. Valentine*, *contra*.

MR. JUSTICE SWAYNE delivered the opinion of the court.

These are cross-appeals in the same cause. Both involve questions in mechanics. These being determined, the legal propositions which apply are so well settled as to admit of no controversy.

A patent was granted to Blake on the 15th of June, 1858, by the United States, for a stone-breaker. On the 9th of January, 1866, the same authority reissued the patent to him, with amended specifications. It was extended on the 15th of June, 1872. The bill in this case is founded upon the latter patent. It charges infringement.

The answer avers that the machine described is of no practical utility, denies the novelty of the invention, and also the alleged infringement.

The description in the specification sets forth three things as the essential characteristics of the machine:—

1. Two jaws, within which the stones are to be broken. Their faces are to be so nearly in an upright position that the stones will descend between them automatically. The jaws are to be so far convergent that the interspace at the top will be sufficient to receive the stones, and that at the bottom only such as will allow the fragments to escape when broken of the required size.

2. A revolving shaft, driven by steam or other motive power, imparting to one of the jaws a continual vibratory movement, causing it alternately to approach toward and recede from the other jaw, through a short and definitely limited space, so that, when a stone is put in, the movable jaw will advance and crush it, then, receding, liberate the fragments, which again descend, and, if too large, are rearrested and crushed again; and so on, until the fragments have passed out through the open space at the bottom. The distance between the jaws is to be adjustable at pleasure, so that the stone can be broken of any desired size.

3. A fly-wheel is combined with the revolving shaft and movable jaw, for the purpose of rendering the strain upon the power more equal.

The claim is for—

A combination of a stone-breaking machine of upright converging jaws with a revolving shaft and mechanism imparting a definite reciprocating movement to one of the jaws from the revolving shaft, the whole being and operating as set forth.

The combination in a stone-breaking machine of the upright movable jaw with the revolving shaft and fly-wheel, the whole being and operating as set forth.

In combination with the upright converging jaws and revolving shaft imparting a definitely limited vibration to the movable jaw, so arranging the jaws that they can be set at different distances from each other at the bottom, thus producing fragments of every desired size.

A moment's glance at the model furnishes a sufficient answer to the objection of the want of practical value. It would be passing strange if a machine of that character could have gone

through the severe conflicts of litigation which this patent has encountered, and have come forth victorious from every contest. It has proved equal to every ordeal to which it has been subjected. The number sold by the complainant, as shown by the record, is conclusive upon the subject.

The patent to Hobbs & Brown of the 4th of September, 1849, and the patents to Hamilton of the 30th of January, 1854, and the 5th of January, 1855, antedate the patent to Blake. It is insisted that each of them is for a machine substantially the same with the one described in Blake's patent, and that they are fatal to his claim of the requisite novelty of his alleged invention.

The machine of Hobbs & Brown is for "improvements in the application of well-known mechanical means for the purpose of crushing ice." . . . The "improvements consist in applying a hopper with one diagonal fixed side and two parallel sides, to contain the ice, and compressing the ice by a movable fourth side, the fixed diagonal side and moving side having within them dental projections cut or cast on, to operate downward and prevent the ice from rising in the hopper when compressed, and also to enter and split the ice."

The machine is operated "by the combination with these parts of a lever fitted with an eccentric or cam-formed point."

There is in this description neither of the ingredients nor the compound of the Blake machine. Every element and the combination are wanting. There is no mention of the converging adjustable jaws, of the revolving shaft, nor of the fly-wheel. The differences are as marked in the mode of operation as in the structural elements of the machine.

The Hobbs & Brown machine does its work by the downward and sweeping movement of the jaw, and the grasping and splitting by the teeth. The motive power is supplied and applied by a hand-lever, which gives a motion irregular, and varying with the varying exigencies of the ice during the process to which it is subjected.

The Blake machine performs its functions by the short, regular, and unvarying vibrations of the smooth-faced adjustable jaw, driven without intermission by the revolving shaft.

It is obvious that the Hobbs & Brown machine could not be

applied with effect to the purpose of breaking stones, without essential changes of principle and details.

Hamilton's machine was "for crushing and grinding quartz or other substances."

In the specification annexed to his original patent, he says:—

"My invention consists in the use of a cylindrical nut or pestle in a similarly formed basin, the pestle having a partial rotary and crushing motion communicated to it by means of a lever attached thereto.

"*A*' is a basin, the lower part of which is made circular, and the sides parallel to each other. '*b b*' are flat ends or heads secured to the basin by bolts.

"*C*' is the shaft carrying the cylindrical pestle, '*d*'

"*E*' is a lever attached to or formed with the pestle '*d*,' the upper end being connected by a joint '*2*' to '*a*' pitman, passing to a crank, eccentric, or other suitable mechanical contrivance, to give the arm '*E*' an oscillating movement, and the pestle a partial rotary motion on its shaft '*C*.'"

The claim of this patent is for "the means herein described and shown for crushing and grinding metallic ores, consisting of the cylindrical pestle, '*d*,' provided with grooves in its upper part to crack the lumps of ore, and set on a shaft, '*C*,' on which it has a partial rotary motion, and operating in connection with the basin, '*A*,' in which said pestle moves to grind the ore into powder by the gradual approach of the sides of said basin to the cylindrical pestle, said pestle being also provided with a scraper or agitator, '*5*,' in its lower surface, to operate as specified."

The second patent is declared to "consist in providing means for keeping the pestle down with sufficient force to pulverize the material operated on, and also to prevent the pestle from grinding too finely; *i.e.*, to furnish material for simply cracking the ore or other material into small lumps of any desired size, instead of grinding the same to a powder, thereby adapting the machine to different characters of metallic ores or other substances."

We have here no reflex or embodiment of either of the ideas that found expression in the Blake machine. The converging jaws, the revolving shaft, and the fly-wheel, are all wanting, as

in the Hobbs & Brown machine. Instead, there is a cylindrical nut or pestle, having a partial rotary and crushing motion communicated to it by means of a lever attached thereto. The pestle rotates on a central axis within an eccentric concave. The work is done by this pestle. There is nothing of the vibratory motion of a movable jaw, alternately advancing and receding, as in the Blake invention.

The difference is not that of mere mechanical equivalents. It is radical, and goes to the essence of the organisms. These considerations are so obvious, that further remarks upon the subject are unnecessary.

The proofs show that but two of the Hamilton machines were ever made. Practically, the invention was abandoned.

This brings us to the question of infringement.

There are numerous points of similarity, and, indeed, of identity, in the respondent's machine, which are not controverted. It is for breaking stone. It has two upright jaws for this purpose, one fixed and the other movable. The jaws converge. The breaking is effected by the convergence. The movable jaw alternately approaches towards and recedes from the fixed one. This movement is produced by a short and powerful vibratory motion communicated by a revolving shaft, with a fly-wheel upon it. There is an opening at the upper end of the jaws, where the stones are received, and one below, where they are discharged.

The only point of diversity insisted upon by the respondents, is, that the vibratory movement in the Blake machine is limited and unvarying, while in the machine of the appellants it is not of this invariable character.

In the Blake machine, the movable jaw receives its movement from the revolving shaft, through iron rods and levers. In the respondent's machine, it is communicated from the revolving shaft, through a confined column of water.

In the appellant's model, the revolving shaft is not shown. In their machine, it works the plunger of the pump, from which the water is conveyed to a cylinder behind the movable jaw, whence it is applied to that jaw by means of a ram, the ram taking the place of the piston in an ordinary engine. Thus the vibrating arm, the toggle, the toggle-joint, and the pintals

in the Blake machine are dispensed with, and their place supplied by the hydraulic arrangements we have described.

What is so employed in the appellant's machine is the obvious and exact equivalent of what is so dispensed with in the Blake machine. The liability of the packed joints to leakage is a serious objection to such use of water. Any considerable leakage would stop the machine. It could not be used while that condition existed. Constant care and vigilance are necessary in such cases to prevent the frequent occurrence of this evil. Water does not escape from a safety-valve with the same celerity or effect as steam.

The Blake machine has a decided advantage, in the greater simplicity and cheapness of its equivalents.

It is difficult to resist the conclusion that the change had no motive or purpose but evasion.

If there be no extraneous obstruction, the vibratory motion will be exactly the same in both cases. If there be such obstruction, the safety-valve in the appellant's machine might possibly be brought into use with good effect. But if this were so, the valve would be only an addition and an improvement of the machine. The valve, therefore, is, in any view, quite immaterial to the inquiry we are pursuing.

Where an original machine and an improvement upon it are both patented, neither patentee can use what does not belong to him, without the requisite authority from the owner. The appellants having embodied all the ideas of Blake's invention in their machine, the valve which supplemented it, whether good or bad, is outside of the case, and cannot affect the result.

We think the infringement is clearly made out.

It remains to consider the question of damages. A few remarks upon that subject will be sufficient.

The proof is meagre and indefinite.

The infringers made but four machines.

No license fee charged by the complainant is shown. The burden of proof rests upon him. Damages must be proved; they are not to be presumed. The complainant made a profit of forty dollars an inch on the width of the jaws of the numerous machines he had sold.

But inventions covered by other patents were embraced in

those machines. It was not shown how much of the profit was due to those other patents, nor how much of it was manufacturer's profit. The complainant was, therefore, entitled only to nominal damages. This the court gave him. It was all the state of the evidence warranted. It would have been error to give more.

*Decree affirmed, and the costs of each appeal are adjudged against the party taking it.*

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JEROME v. McCARTER.

1. Prior mortgagees are not necessary parties to the bill of a junior mortgagee, which seeks only the foreclosure or the sale of the equity of redemption.
2. Neither the mortgagor nor his assignee in bankruptcy can object to the order in which the priority of valid and subsisting liens on the mortgaged premises is fixed by the decree of foreclosure.
3. The subsequent bankruptcy of the pledgor of a negotiable instrument does not deprive the pledgees of their right to dispose of it upon his default.
4. An objection that leave was not given to file the bill of foreclosure,—the mortgaged premises being at the time in the possession of a receiver appointed in a former suit in the same court,—if, under any circumstances, available, will not be sustained, if made a year and a half after the bill was filed, and when the party objecting had in the mean time appeared, answered it, and cross-examined the witnesses of the complainant.

APPEAL from the Circuit Court of the United States for the Eastern District of Michigan.

The case is fully stated in the opinion of the court.

Argued by *Mr. Matt. H. Carpenter* and *Mr. George Norris* for the appellants.

*Mr. George F. Edmunds* and *Mr. Alfred Russell*, *contra*.

Mr. JUSTICE STRONG delivered the opinion of the court.

There are no less than twenty-seven assignments of error in this case, but the subjects of real controversy are few. The bill is an ordinary one for the foreclosure of a junior mortgage covering the canal and franchises of the Lake Superior Ship Canal, Railroad, and Iron Company, and covering also two separate bodies of land, each containing two hundred thousand acres. The mortgage was given expressly subject to two prior