# NEW YORK EXHAUST VENTILATOR CO. V. AMERICAN INSTITUTE OF THE CITY OF

## NEW YORK AND ANOTHER.<sup>1</sup>

Circuit Court, S. D. New York. September 1, 1886.

#### 1. AWARDS–RIGHTS OF PARTIES TO.

Where one of two parties who had submitted machines to the American Institute for an award of a medal for superiority, filed a bill to restrain the Institute from granting, and the other party from receiving, said medal, *held*, that prior to the time when the parties submitted themselves for the award there was no existing right of property or right of action in complainant adverse to either of the defendants.

#### 2. SAME–EQUITY JURISDICTION.

A party who has submitted his machine for an award has no right to invoke the aid of a court of equity to compel the making of an award of superiority in his favor, nor to restrain the making or carrying out of an award in favor of his competitor.

In Equity.

James A. Whitney, for plaintiff.

*Charles B. Alexander* and *Allan McCulloh*, for the American Institute.

*J. Alfred Davenport* and *Edward G. Perkins*, for the Simonds Manufacturing Company.

BLATCHFORD, J. The plaintiff is a New Jersey corporation, and each of the defendants is a New York corporation. The allegations of the bill are, in substance, these: The plaintiff is engaged in making and selling ventilator wheels known as the "Blackman Wheel." The American Institute, in 1884, publicly offered "a medal of superiority and a medal of excellence for such ventilating apparatus as should, under certain tests and conditions, be proven, on trial, to produce the best results, and excel in certain respects." Thereupon the plaintiff entered into a contract with the American Institute that a competitive test should take place between the "Blackman Wheel," as made by the plaintiff, and another ventilating fan, known as the "Wing Disk Fan," as made by the Simonds Manufacturing Company; that in December, 1884, the American Institute sent to the plaintiff a statement of the conditions on which the competitive test should take place, the same, as signed by the president of the plaintiff, being as follows:

"I hereby agree to the following as the conditions for the competitive test of exhaust fans to be made by direction of the American Institute: Fans 4 ft. in diameter to be used. One test to be made with 30 ft. of suction pipe, of same diameter as fan. With Blackman fan, the 30 ft. to be in addition to the enlarged chamber. One test with 30 ft. of discharge pipe, without any suction pipe, and without enlarged chamber on Blackman. These tests to be repeated with cloth stretched across the pipe. The power required to operate the fans is to be measured by a dynamometer; the quantity of air 723 moved, by an anemometer; and the pressure or vacuum produced, by a watergauge. The dynamometer and other instruments, and the power, to be supplied by the American Institute. The cost of pipe and incidental expenses to be shared equally by the competitors. The tests to be made by and under the direction of the judges appointed by the American Institute. The competitors to have the right to be present to witness any or all of the tests. The competitors to be furnished with a copy of the record of the tests."

-That the plaintiff accepted said conditions subject to a proposition made in writing to the American Institute, that a certain modification be made in said conditions, said writing being as follows, as signed by the president of the plaintiff:

*"To the Judges*—GENTLEMEN: We freely accept your conditions of test, with the exception to your ruling that the Blackman wheel shall draw through 30 ft. of pipe in addition to the enlarged chamber. This enlarged chamber is about fifteen (15) per cent, of the entire length (30 ft.) of pipe our competing fan is required to draw through. If the Wing fan is asked to draw through 30 ft. of pipe, why should the Blackman wheel be required to draw through about fifteen per cent, greater length of pipe? We think, to place the Wing fan and the Blackman wheel upon the same level in this test, both should draw through the same length of pipe measured from the wheel. We desire no advantage whatever, and do not feel that we can consent to give this advantage without expressing our objections.

"As we understand the conditions of this test in general terms, it is that each party can erect their wheel or fan so far as to get the best result through 30 ft. of pipe. If we are correct, we claim that each party should draw and force through 30 ft. of pipe,—no more or less. With this explanation of the disadvantage we are under if required to lengthen the pipe, we accept the conditions, rather than delay the test."

That said modification was accepted by the American Institute; that the Simonds Manufacturing Company subscribed duplicates of the writings, and became a party to the contract; that the conditions in the writings were those on which the plaintiff was induced to submit the Blackman wheel in competition for the prize with the Wing disk fan; that the test was conducted under the direction of the agents of the American Institute; that from the trials of the two apparatuses it appeared, as concerned all matters in issue under said conditions, and to be determined in said test, under said contract, that the trials resulted in favor of the Blackman wheel, and demonstrated its superior utility and merit as compared with the Wing disk fan, all of which facts were admitted by and known to each of the defendants; that the plaintiff, under said contract, became entitled to a favorable judgment from the judges, the agents of the American Institute, and to receive a medal of superiority for the Blackman wheel; that the agents of the American Institute, with the aid, knowledge, and collusion of the Simonds Manufacturing Company, wrongfully, willfully, fraudulently, and with the intent to deprive the plaintiff of the award of superiority, and without its consent, disregarded the conditions of said contract and writings, and, upon issues and matters not contemplated or authorized by the terms of said contract and writings, and in defiance of the rights of the plaintiff, and to its irreparable injury, 724 unjustly and wrongfully, in furtherance of said plan or conspiracy, and with wicked intent, rendered a report to the American Institute which denied the right of the plaintiff to the highest award, and declared that the Wing disk fan was entitled to the highest award, and recommended that the American Institute award a medal of superiority to it, said report being as follows:

"To the Board of Trustees of the American *Institute*–GENTLEMEN: For the purpose of ascertaining the capacity and efficiency of the ventilating fan exhibited by the New York Exhaust Ventilator Company, and known as "Blackman's Ventilator Wheel," and of the ventilating fan exhibited by the Simonds Manufacturing Company, and known as the "Wing Disk Fan," competitive tests were made in the machinery hall of the Institute building, The fans were placed, in turn, at the end of a pipe four feet in diameter, and thirty feet long, through which they drew or forced air as required. Tests were made at different rates of speed, and under the conditions of drawing or forcing through the open pipe, or through a disk inserted in the pipe, and made of a material known as cheese-cloth. The obstruction offered by the cheese-cloth was intended to represent, in a measure, the resistance encountered by the air when passing through such substances as wool, malt, etc., for drying purposes. A small  $7 \times 7$  engine furnished the power, which was transmitted to the fan by means of belts,—one counter-shaft intervening between the engine and fan-shafts. The speed of the engine was regulated by a governor. Indicator cards were taken as often as practicable during a test, and the average of these was taken as the power for that particular test.

"The velocity of the air passing through the pipe was measured by an anemometer. Its readings were taken at seven fixed points across the mouth of the pipe, one in the center and three on each side; the opposite pairs being at the same distance from the center. The anemometer recorded during one minute at each point. For the purpose of calculating the volume of air, the pipe was considered as divided into rings, bounded by imaginary circles drawn midway between these points. The mean of the readings in each ring, taken as the velocity for that ring, gave the volume of air passing through it. Both fans are constructed on the principle of the screw propeller, moving air in lines parallel to the axes of the fans.

"The blades of the Blackman fan are fixed; that is, not adjustable. Their peculiar shape, the exhibitors claim, causes them to draw in the air at the periphery as well as at the face of the fan. The fan is therefore placed, when erected for drawing through pipes or flues, in a chamber large enough to admit the air freely to the periphery. When erected for drawing from a room or hall, it is placed in the wall or ceiling, but entirely within the room.

"The fan used in the tests was four feet in diameter, and had six blades. The chamber used for drawing tests was five feet long, and six feet in diameter at the part immediately surrounding the fan. The blades of the Wing fan are adjustable,—*i. e.*, capable of being set at any desired angle,—the angle being the same at all points of the blade, radially. This fan draws air only at its face, and may be set in a pipe or flue which is merely large enough to allow the fan to revolve. The fan used in the tests was four feet in diameter, and had six blades, which were set at the same angle for all the tests. Representatives of both fans were present during all the tests, and expressed themselves as fully satisfied with the manner of conducting them.

"Tests E, J, and E of the Blackman fan were omitted; the representative of that fan stating that it had already been tested at as high speed as he would recommend for actual use. The accompanying tables show the velocities of the air passing through the pipe at different points, the volume of air per minute, and the horse-power of the engine. The accompanying diagrams 725 represent the volume of air, and the powers of the engine, in convenient forms for comparison. Black lines are used for the Blackman fan, and red lines for the Wing fan. The horizontal measurements show volumes of air, and the vertical measurements tile power.

"An inspection of diagrams shows that, when equal volumes of air were moved, the corresponding powers were nearly equal with both fans. The differences of power—some in favor of one fan, and some in favor of the other—were so small that they would not be considered commercially.

"From the results of the tests we draw the following conclusions: The fans are nearly equal when running at speeds not exceeding 500 to 600 revolutions per minute. When necessary to exceed that speed for the purpose of moving greater quantities of air, it can be done much more advantageously by the Wing fan than by the Blackman. As space available for setting a fan is sometimes limited, this is an advantage.

"Very respectfully, your obedient servants,

"E. A. MAGEE, "J. T. BEDFORD, "E. M. HUGENTOBLER, "Judges." (The tables and diagrams are omitted.)

"To the Board of Managers of the American Institute–GENTLEMEN. We find that the ventilating fan exhibited by the New York Exhaust Ventilator Co., and known as the 'Blackman Ventilator Wheel,' is well constructed and of good materials. The blades are fixed. Each fan, to attain its highest efficiency, must be constructed to suit the conditions under which it is to operate. An alteration of these conditions impairs its efficiency.

"We recommend an award of the medal of excellence.

# "E. A. MAGEE.

"J. T. BEDFORD.

### "E. M. HUGENTOBLER."

-That, after each of the defendants knew of said results of the tests, the agents of the American Institute made certain tests unknown to the plaintiff, and based the conclusions contained in their report on such fraudulent and collusive tests or trials, and not on those made under said contract and writings; that the plaintiff, as soon as it was informed of said report, and before any action thereon, delivered to the American Institute a protest in writing, the contents of which are true, as follows:

### "NEW YORK, April 29, 1885.

"The Board of Managers American Institute, Booms 27 and 28 Cooper Union, City-GENTLEMEN: We received yesterday the report of Messrs. Magee, Bedford, and Hugentobler, judges upon the Blackman ventilator wheel, under date of the fifteenth inst., awarding to said wheel the medal of excellence. We shall be forced to enter our protest against the adoption of this award by your honorable body, and trust that we shall be able to convince you of its injustice to us. We have also been informed by Mr. Magee that a similar report upon the Wing disk fan, recommending award of the medal of superiority, has been submitted to you, and that the reason for this award is the 'adjustability of the blades *of that fan.*' We desire also to enter our protest against the adoption of the report upon this fan. We respectfully submit the following arguments as a basis for our grounds for protest:

*"First.* The adjustability of the blades did not enter into the competitive 726 tests between these ventilating machines, but, to the contrary, was denied by the judges.

*"Second.* It was the earnest wish and request of this" company, before the tests were made at the American Institute, to have the Wing disk fan tested with its blades at various angles, (such as might be selected by the proprietors of that fan,) and that we be allowed to use two or more Blackman wheels, to have different angled blades, against the Wing fan, with the blades set at different angles. This, however, was most positively refused us by the judges, who refused to allow the use of more than one Blackman wheel for the various tests made, and restricted the Wing disk fan to one angle of blade to be selected by its owners; stating, at the same time, that the adjustability of these blades did not enter into the competitive test in any manner whatever, and would not be considered, and that the Wing fan would be treated as though its blades were fixed and rigid; and it was so treated throughout the entire tests made in our presence by your judges.

*"Third.* There are no *data* in existence, and no experiments have ever been made, which show that the adjustability of the blades of a ventilating fan is a desirable feature. It is not 'an established fact that the efficiency of a ventilating fan is affected by the angle at which blades are set.'

*"Fourth.* Adjustability of blades in a ventilating fan is of no practical value, because it requires expert knowledge, and a series of tests of the volume of air and power, to be able to adjust the blades in each particular case, which, to our knowledge, has never yet been done.

*"Fifth.* The figures taken by your judges will prove us to be correct in the assertion that, out of four series of competitive tests made by your judges, the Blackman ventilator wheel proved to be the most efficient in three, and the most efficient in all four, series, at those speeds used in actual ventilation.

"Sixth. We are reliably informed that, after the tests between the Blackman ventilator wheel and the Wing disk fan had been made, the result being in the hands of your judges, and their report pending, Messrs. Magee and Bedford were employed by the Simonds Manufacturing Company (proprietors of the Wing disk fan) to make an extensive line of experiments with that fan, from which only they could have learned that there was any advantage or disadvantage in the adjustable feature of the blades. We claim that this was improper and unjust, and that their judgment has been biased by these private tests. We, under these circumstances, (before they rendered their report,) should justly have been notified and permitted to make the same line of tests with the Blackman wheel, with blades at different angles.

"We enter our final protest, and respectfully claim that the Wing disk fan is not entitled to the medal of superiority, from the fact that the record of three out of the four tests made by your judges did and will show that the Blackman wheel is the superior of the two; which being the fact, the recommendation of your judges is unfair to us, and should be annulled.

"We most respectfully request that the medals recommended by your judges may not be awarded until such time as you shall have had an opportunity to investigate the facts we have here given, all of which we are prepared to substantiate should we be given an opportunity. All we ask or desire is a just award upon the merits of the wheel and fan.

"Very respectfully yours,

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### "NEW YORK EXHAUST VENTILATOR Co. "By D. R. MORSE, President.

"We neglected to say, in our protest, that Mr. E. M. Hugentobler was not present at any time during the test. He, therefore, can only sign the report upon statements made him by those who were present.

#### "D. R. MORSE."

-That thereafter the plaintiff, at divers times, demanded from the American Institute an award to be made in its favor of a medal of superiority, which has been refused, and also demanded from the American Institute that it refuse to award the medal of superiority to the Wing disk fan; that the Simonds Manufacturing Company has circulated, in newspapers and circulars, statements that the Blackman wheel is inferior to the Wing disk fan, and that a fair test has been made under the direction of the American Institute, which resulted in showing that the Blackman wheel was inferior to the Wing disk fan; and that the defendants were privies with each other in said contract.

The bill contains allegations that the American Institute was incorporated principally to encourage and promote the useful or industrial arts and manufactures, or any improvements made therein; that "in so doing, and with that object in view, it represents to and is so regarded by the public and the world, that, through competent judges, carefully selected by it as just, experienced, skilled, and honorable, it will justly, carefully, and honorably, and in accordance with the facts, and without bias or improper or wrongful influence, after due and proper examinations and tests, pass upon and judge of the merits and superiority of different manufactures and improvements therein exhibited to them, and bestow rewards and benefits to those who excel therein, and proclaim and publish publicly the results of its decisions so found, as also its rewards and benefits to parties competing therefor;" and that the plaintiff went into said competition relying solely on said representations, and on the contents of said contract and writings.

The prayers of the bill are: (1) That the American Institute be forever restrained from awarding the medal of superiority to the Wing disk fan, or to the Simonds Manufacturing Company, in accordance with said report, and be restrained from so doing pendente lite; (2) that it be forever restrained from publishing said report, and be restrained from so doing pendente lite; (3) that the Simonds Manufacturing Company be forever restrained from accepting said medal of superiority, and be restrained from so doing pendente lite; (4) that the Simonds Manufacturing Company be forever restrained from publishing said report, and from publishing any declaration that the Blackman wheel is inferior to the Wing disk fan, and be restrained from so doing *pendente lite;* (5) that it be decreed that the plaintiff is entitled to receive from and be awarded by the American Institute said medal of superiority, and that the American Institute award and deliver it to the plaintiff.

The two defendants put in separate answers, proofs have been taken, and the case has been heard. After the bill was filed, a motion was made for a preliminary injunction, which was denied. 23 Blatchf. 321, and 24 Fed. Rep. 561.

On the proofs the state of the case appears to be that the American 728 Institute, as alleged in its answer, offered "a medal for the best apparatus for ventilating fan, for which the two defendants competed. The plaintiff contends that the written instruments amounted to a contract between the plaintiff and the American Institute, by which certain competitive tests were to be made to show the capacities of the two machines for moving air, and that the medal of superiority was to be awarded to the one whose capacity should, on such tests, appear to be greater; that the result of such tests was in favor of the plaintiff; that the decision in favor of the Wing disc fan was made solely on the ground that its blades were adjustable at different angles, while those of the Blackman wheel were fixed; that, under the contract, the judges were not at liberty to take into account that feature of adjustability; and that two of the judges, by agreement with the Simonds Manufacturing Company, made private tests of the Wing disc fan, after the completion of the regular competitive tests, and before the decision was given.

There was no contract that the medal should be awarded to the machine showing the best results on the tests specified in the written papers. The tests, as to the power required to operate the fans, the quantity of air moved, and the pressure, were to be made under the conditions specified in the written papers. They were so made. But there is nothing in those papers referring to any medal or prize, or to the grounds on which it should be awarded. The award was to be made by the American Institute for what it should, on the whole, regard as superiority in the machine as a whole. The judges were merely an advisory body to report on the special tests embodied in the written papers, and on such other matters as affected the question of superiority. On the whole evidence there is nothing to impeach satisfactorily the accuracy of the results arrived at by the judges from the tests set forth in the tables; or to show that, being at liberty, as they were, to consider the feature of the adjustability of the blades, that feature ought not, in view of all other results, to have controlled, in their judgment and in that of the American Institute, the question of superiority.

No valid objection grows out of the private tests made subsequently to the other tests. They had reference to the proper angles at which to set the blades of the Wing disk fan under given circumstances. Their results had no effect on the results of the prior tests. But the subsequent tests were not private, in any sense applicable to this case; for it was known to the plaintiff they were to be made, and it was known by it, prior to the award, that they had been made.

It has been deemed proper to state the foregoing conclusions on the evidence, in vindication of the good faith and propriety of the action of the two defendants and their agents, and of the judges of the American Institute, as to the questions of fact put in issue. But there is a deeper question in the case. There was no existing right of property or right of action in the plaintiff adverse to either of the 729 defendants, prior to the time the two competitors submitted themselves to the American Institute for an award. Whatever claim the Simonds Manufacturing Company might set up, if it could legally set up any, to have the award in its favor, if made by the American Institute, carried into effect, the plaintiff certainly has no right to invoke the aid of a court of equity to compel the making of an award of superiority in its favor by the American Institute. Equally, it has no right to restrain the making or the carrying out of an award in favor of the Simonds Manufacturing Company. No authority or precedent is found for any such suit as this.

The bill is dismissed, with costs to both defendants.

<sup>1</sup> Edited by Charles C. Linthicum, Esq., of the Chicago bar.

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