

v.29F, no.9-24

ROYER AND OTHERS V. COUPE.

Circuit Court, D. Massachusetts.

October Term, 1886.

1. PATENTS FOR INVENTIONS—INFRINGEMENT—NO. 77,920—MACHINE FOR TREATING HIDES.

In action for infringement of letters patent No. 77,920, issued to Herman and Louis Royer, May 13, 1868, for a machine for treating hides, plaintiffs' machine softened the hide by fastening it to a vertical shaft, revolving in a crib, in which the hide was revolved under the pressure of a weight in the upper part of the crib, through which the shaft passed. Defendant's machine softened hides in the same way, except that his shaft was horizontal, and the pressure on the hides was applied through the head of the crib by screws. *Held* an infringement, the principle and method of the plaintiffs being used in the design of the defendant.

2. SAME—MISSTATEMENT IN PATENT AS TO INVENTOR—JOINT INVENTION.

If a patent is issued to two persons as inventors, when in fact it was invented by only one, the patent is void.

3. SAME—IMPROVEMENTS—RIGHT OF PATENTEES.

Where an improvement is made and patented in a patented machine, the first patentee cannot use the improved machine without the consent of the second, and the second cannot use his machine without the consent of the first.

4. SAME—PATENT NOT OPERATIVE.

If the first patentee's machine is not operative, and the second patentee's is operative, the first patentee must be confined to his own particular application of his principle, and there is no infringement by the second patentee.

5. SAME—TEST WHETHER A PATENT IS OPERATIVE.

In determining the question whether a patent is operative, the workings, not of a machine made as a literal copy of the drawings of the patent, but of one made with the mechanical devices which will tend to make a machine practical and operative, and which are within the duty of the mechanic, are to be considered.

6. SAME—INFRINGEMENT—MEASURE OF DAMAGES.

The value of an invention to the party using it is competent evidence on the question of damages for the infringement of a patent.

Action at Law for the infringement of letters patent No. 77,920, issued to the plaintiffs, May 12, 1868, for a machine for treating hides.

The machine described in the patent consists of a vertical shaft, surrounded by a vertical circle of pins or rollers, constituting a crib. The shaft contains slots, and set-screws projecting into the slots. A disk-shaped weight, grooved on its edges to fit the vertical pins or rollers, and having a hole through its center through which the vertical shaft projects upward, is shown and described as filling the entire cavity at the upper end of the crib. The hide having been unhaired, its end is inserted in the slot in the vertical shaft, and is made fast there by setting the set-screws up against it. The vertical shaft is then made to revolve so as to wind the hide around it, and fill up the crib, and is then made to revolve

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in the opposite direction, so as to wind the hide up the other way, from the inside, and is again reversed, winding it the other way; and this operation is repeated until the hide, by the repeated foldings under pressure of the crib, and of the weight which is pressed down upon it, has its fibres so loosened as to soften it, and make it fit for belt lacing. Stuffing is applied to the hide during the operation.

The claims of the patent are as follows:

(1) The vertical shaft, B, with a slot B, and set-screws *b, b, b*, said shaft having a forward and back motion, substantially as and for the purpose described.

(2) The pins or rollers, C, C, C, set in the rings, D and D, together with the grooved weight, I, substantially as and for the purposes described.

It appeared in evidence that the only methods for softening rawhides known before the plaintiffs' invention was by beating or boarding them by hand, or, as was practiced in Russia, by hanging them in strips on a bar, attaching weights to the lower ends of the strips, and then spinning or twisting them, first in one direction and then the other; although it appeared in evidence that it was possible to soften them by what was called a "stuffing-wheel," or with what was known as "fulling-stocks," which were known before the patented invention, but it did not appear that they were used for that purpose. It further appeared that the first fullled raw-hide lacing put upon the market in this country was that which was produced in the patented machine.

There was testimony tending to show that Louis Royer, one of the plaintiffs, several years prior to the patented invention, had constructed a machine for softening raw hides, in which there was a horizontal revolving shaft, surrounded by a circular row of pins, which were held in place by a chain passed around them, but that it was not a practical machine; and that subsequently Herman Royer, the other plaintiff, taking up the ideas of Louis Royer which had been embodied in this first machine, and advising with him, contrived the patented machine. It also appears that, in 1876, Herman Royer, having fallen out with Louis Royer, the other plaintiff, had written a letter in which he stated, among other things, that Louis Royer had "never invented anything in this raw-hide business."

On behalf of the plaintiffs there was evidence to the effect that raw hides could be softened in the patented machine at an expense approaching four or five dollars a hide less than by other means known before the patented invention, and one of the plaintiffs testified that he knew that the difference would be more than a dollar a hide. One of the defendants testified that the old fulling-stocks would be preferable to the patented machine for softening raw hides, because the patented machine could not be made to practically soften them at all.

The machine used by the defendants which was alleged to be an infringement consisted of a horizontal shaft, surrounded by a circle of pins or rollers, constituting a crib, and two false heads, one in each end of the crib, having central holes through which a horizontal shaft was run, which heads were pressed up against the hides by screws. The hides were fastened in this machine to the horizontal shaft by screws in slots, and they were wound and unwound upon the shaft, first in one direction and then in the other, as above described. The defendants introduced evidence that they had tried a machine built

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according to the patent, and that it could not be made to work. It appeared that this was mainly, if not wholly, due to one of the set screws projecting out so that the

weight could not descend far enough to compress the hides. Evidence on behalf of the plaintiffs tended to show that although the head of this set-screw was shown projecting out in the drawings of the patent, yet that an ordinary mechanic, building a machine from the patent, would have known how to correct this defect without invention. The defendants also introduced evidence tending to show that vertical machines could not be made to soften hides. The plaintiffs introduced evidence tending to show that such machines had been used for years. The jury found for plaintiffs.

Thomas L. Livermore and Milton A. Wheaton, for plaintiffs.

B. F. Thurston and W. H. Thurston, for defendants.

CARPENTER, J., (*charging jury*.) It may be useful for you to understand, in a general way, what is the nature of these rights that are called patent-rights, and of which this claim which is brought here is one. You know to how large an extent the progress of the country has depended upon new and useful inventions in the mechanical and other useful arts, and the attention of the congress was early turned, in pursuance of the constitution, to the consideration of what methods ought to be adopted, in the first place, to protect the rights of inventors, and, in the second place,—which is equally important,—to protect the rights of the public. In order to accomplish these two results, the patent laws have been enacted, which provide, in general terms, as follows: He who has invented a new and improved process or machine may, if he sees fit, retain within his own breast the knowledge of the thing; or, if he constructs machinery for the purpose of illustrating his invention, and puts it into use, or, if he carries on the process which he has invented, he may choose to carry it on secretly, and, if he is able to preserve the secret from the deprivations of others, he may thus retain a perpetual monopoly,—a perpetual, exclusive use of the invention,—and may thus, as it were, perpetually levy tribute upon the public for the use of it. The provision of the law, however, is that if he will make public the machine or the process which he has invented,—if he will put down upon paper a clear, distinct, and intelligible, description of it,—then the government will give him the exclusive right, for a definite number of years, (under the present condition of the law, for 17 years,) to use that improvement; the consideration for that grant being, of course, that he has made it known to the public so that when the 17 years shall have expired the public will not only have the right, but they will also be able, to exercise this art for their own profit and advantage. So that you see on one side is a special grant made by the government to the inventor, that he shall have the exclusive use of his invention for a certain time; and there is, on the other hand, a consideration given for it by the inventor; that is to say, the disclosure of his invention, so that the public may afterwards have the benefit of it.

Now, this grant which is thus made to an inventor constitutes property to which he is entitled, and, as in the case of all other property, the law forbids any encroachment or infringement upon this right. That is to

say, just as the law forbids any man to take and carry off the physical property, as the book, or the knife, or the tool, employed by another in his work, so it prohibits any person from using or practicing the invention in respect of which this patent has been issued; and, in case any such infraction of the law should occur, the patentee has a right to bring his action against the person who has so interfered with his rights, and recover from him such reasonable damages, or such other relief, as the forms of law permit. He is allowed, and for a long number of years in the past he has been allowed, to bring his action either on the law side, as it is phrased, or on the equity side, of the court. That is to say, he may cause his dispute to be brought for determination before a jury, as in this case, or before the court, as in an equity case; and he is allowed free liberty of choice between these different remedies, choosing, of course, that one which, according to his judgment and the best advice that he can get, will be the most advantageous to him. If the patent has expired, as in this case, he is compelled by the law to bring his action before a jury, and the attitude in which he stands is this: He has no longer an exclusive right to this invention. That is to say, it is competent for any person in the community, notwithstanding the patent which we have here produced, at this present time, and to-day, to make the machine described in his patent. During the period of time, however, when the patent was in force, it was not lawful for any person to make such a machine. Therefore, if during that time, as is here alleged, the defendants have made a machine which contains the invention patented by him, supposing you find that to be a practical and valid invention, then his right now to recover such damages as he may have suffered is perfect and complete.

The provision of law that no person shall take, or use, or infringe the rights of a patentee does not depend upon the knowledge on the part of the public of the patent itself; that is to say, an actual knowledge. The patent is public, and is accessible to any person who may conceive that his business interests will be subserved by his finding out what his rights are and what they are not; but, whether he reads the patent or not, he is nevertheless bound by it. He cannot excuse himself by alleging, or by proving even, if he can prove it, that he was not aware of the rights of the patentee. A patentee's rights are derived from the grant of the government, and are complete from the time when the patent is sealed and delivered to him, and it is the business of every person in the community to avoid infringements, at his own risk. Nor is it necessary, gentlemen, before bringing the action, that the patentee should notify or inform the defendant that he conceives there is an infringement of his patent. If it were necessary, for example, that notice should be given, then the conversation which took place between one of the plaintiffs, Herman Royer, and one of the defendants, Coupe, at the shop of the defendants, in Attleboro, in 1880, as that conversation is detailed by Coupe himself, throwing out of the account the state-

ments made by Royer, would have been sufficient to put the defendants on their guard, and to notify them that a claim was or might be made against them.

But in this case it is not necessary to show any notice. The plaintiff may produce his patent, which is the evidence of his right, and if he shows that it has, in point of fact, been infringed, then it will be no defense to his action if the defendant either prove that he did not know of the existence of the patent, or that the plaintiff neglected to notify him. He was bound to know, and the plaintiff was not bound to assist his information or knowledge by notifying him.

I shall now give you, gentlemen, as briefly as may be, a statement of the different defenses which are set up against this action, and a statement of the principles by which you must be guided in determining the issue. You will understand that it is undisputed that here is a patent issued in regular form of law, after the proper application, accompanied by the proper affidavits, and on the performance of all those acts and things which are required by the statute to the valid issue of a patent. If that were all, the right of the plaintiff would be clear beyond a question, because the patent itself, unaccompanied by other evidence, is to be taken by you as sufficient evidence of its own validity, and of the propriety of the act of the government in issuing it. There are certain defenses here made, however, all of which you must take into account, and I shall, as I have said, briefly state them to you.

In the first place, the defendants plead the statute of limitations. That is to say, they plead that, as to the claim which is brought against them, part of it is based upon actions performed by them more than six years before the date of the writ. That, gentlemen, is a defense which is given them by the law, and of which they are entitled to take advantage; and therefore, should you come to the computation of the damages in this matter, you will take into account only such unlawful acts of the defendants as you may find to have happened since the fourteenth day of July, 1879. All before that is out of the account on account of the lapse of time. Whatever has happened since that time you are to take into account, and determine its character, and, if you find it to be a violation of the law, you are to assess the damages for it. It is not a stale claim; it is not a claim as to which the lapse of time ought to be taken into account in any respect whatever, except, as I say, in regard to those actions of the defendant which occurred before the fourteenth of July, 1879. The acts of the defendants before that are outside of the limit of your inquiry; as to their acts since that time, it is your duty to determine their character, and, if you find them to be unlawful, to assess the damages which have resulted.

Mr. Wheaton. That is, up to the date of the assignment, I suppose, your honor.

Carpenter, J. In addition to what I have said, I will state that in computing the damages, and in considering the unlawful acts of the defendants, if you find they are such, you are to compute no damages, and consider no acts of theirs, which have occurred since the tenth of March, 1885; so that you will understand that the limit of your inquiry is from the fourteenth day of July, 1879, to the tenth day of March, 1885.

Now, gentlemen, in the first place, as to the defense which is made regarding the question of whether this machine was invented by Herman Royer and Louis Royer together, you will readily understand that it is one thing to say that the machine was invented by Louis Royer, for example, and quite another thing to say that it was invented by Herman and Louis Royer. If this machine was invented by Herman and Louis, then it would be untrue to say that it was invented by Louis or by Herman. If, on the other hand, it was invented solely by Louis or solely by Herman, then it would be equally untrue to say that it was invented by Herman and Louis; and you are to understand the law to be that if, in this respect, the patent contains a statement which is untrue, and not in accordance with the facts, then the penalty which the patentee pays is that his patent is absolutely void, and of no effect.

Now, the charge made here is that, whereas the patent describes Herman and Louis as the inventors, in point of fact the invention was made by Louis alone. Upon the testimony which you have heard here, two claims are made on the one side and on the other. The defendants claim that Louis Royer, before Herman Royer became interested in this transaction, had invented a machine which was substantially like the machine described here in the patent, and which contained such mechanism as that the machine invented by Louis Royer was as near an approach to an operative machine as is the machine here described, and that that part of the work which was done by Herman Royer after he came to San Francisco was simply to add some improvements to it. If you are satisfied that such was the case, you need not go any further in this investigation; you are to bring in a verdict for the defendants. On the other hand, the plaintiffs claim that this was the state of the facts: That Louis Royer had experimented upon the art of breaking hides by a machine of this general description; that he had constructed a machine which was not sufficient for the purpose,—which did not accomplish the work of breaking hides, or of breaking a single hide,—and that because of the absence of the controlling or containing head or plunger of the apparatus, and also because of the fact that the bars were loose, and only a few of them came into operation at a time, and those but imperfectly; and that afterwards, Herman Royer coming to San Francisco, and joining with his brother, they put together the investigations already made by Louis, and the subsequent investigations and experiments made by Herman; and that from the whole was developed the machine which is described in these letters patent. If that was so, gentlemen, then this defense falls to the ground, and, so far as that is concerned, the plaintiffs are entitled to your verdict.

Still, further, and perhaps at greater length, the defendants contend that they do not infringe the rights of the plaintiffs; that is to say, they claim that their machine does not contain the elements of the plaintiffs' machine, combined as those elements are combined by the plaintiffs. Upon that subject one preliminary observation will be useful to you.

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In order that the defendants, or any other person, should infringe the rights of the complainant in this machine, it is not necessary that they

should construct a machine which is exactly like the machine of the plaintiffs. The machine which is shown in the drawings which are annexed to the plaintiffs' patent is one machine which might be made, and which would answer the description of the specification, and would be the machine of the plaintiffs; but it is not every machine which can be so made. There may be variations from that structure which do not affect either the general structure of the machine, or the method of its operation. Such variations are included in the patent itself. I make that statement to you as being a full and technically correct statement of it, but I shall proceed to explain it still further in this way: These machines, gentlemen, (and I speak of them generally,) have a shaft in the center. It is represented as round in all the patents, I think, which you have seen. If it could be made four-sided or eight-sided, without interfering with its usefulness, such a change would not excuse a defendant from the charge of infringement. Such a change would be a change which, for our purposes, we should call an immaterial change. That shaft in the patent is represented as containing two screws for the purpose of holding in one or more hides. Looking at the printed description, which you will find annexed, also to the plaintiffs' patent, you find that in one place it speaks of the screws, referring to them as being three in number, and in another place as being four. You will understand that the number of screws is immaterial. You will understand, also, that the number of bars which form the circular or cylindrical crib is immaterial; there may be more, or there may be less, according to convenience. You will understand that the points of attachment of the hides to this shaft may be either one, as is shown in the patent, or perhaps two, the suggestion being made that the hides might be put on both sides of the slot, or there may be three or four or any other number of points of attachment. Such a variation as that is not a variation which excuses the defendants from the charge of infringement.

There are other illustrations which might be made, but I refer to those because they have been the subject of some controversy and debate here, and will not only serve as illustrations to your minds, but will also serve to enlighten you, perhaps, somewhat, in the consideration of this question of infringement. But the statement which covers all of it is this: that no change in the form or shape of the different parts of this machine is material, so long as you do not vary from the essential character of those parts as they exist in the description given in the patent. They may be thicker, they may be longer, they may be thinner, they may vary in their general external shape or conformation, but so long as they do not vary from the general purpose for which they are designed, so long as they still continue to serve that purpose, so long they are included within the description of the patent, they are within the meaning of the patent, and variations of that sort cannot be brought forward as an excuse against the charge of infringement.

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That principle, I think, covers all the changes in the forms of this mechanism to which your attention has, been called during this whole trial, so that, for a practical application of this principle, you may understand

that there is no difference in the shape and form of the different parts of these two machines which is sufficient to make any distinction between them, such as the defendants claim. That is to say, so far as the shape and form of the different parts of those machines are concerned, this machine is exactly the same as that in point of law, and is covered by the description of it, and is an infringement of it against which the law denounces a penalty.

You will come, however, gentlemen, to another and further consideration which you must determine upon the testimony which is laid before you. In order to explain that, perhaps I ought to preface by saying what you are to take this patent to mean; what it is, in brief terms, that it covers. In order that I may bring my observations within the technical requirements of such a case, what is the interpretation which you are to put upon this patent? This, gentlemen, is a patent in which the invention of the plaintiffs is an invention which is to be described as follows: It consists of a shaft which contains, or has attached to it, means by which hides can be fastened to its periphery. Around that shaft, and leaving that shaft in the center, are arranged a number of bars, which shall contain the roll of hides after it has been wrapped around the central shaft. In the third place, there is a plunger or false head, or contracting device, whatsoever you may call it,—a piece of metal or of wood,—which so moves as to reduce the space within which the hides are contained, for the purpose of squeezing them sidewise. That is all there is in the machine, and any machine which contains these elements is an infringement of the plaintiffs' device, and is a violation of law. I need not say to you that the defendants' machine is such a machine. It contains a central shaft, and a device for fastening hides to it. It has other devices also for fastening other hides, but that constitutes no excuse for the use of the one single device for fastening the hides. It has the bars surrounding the central shaft, which confine the hides after they are wound about that shaft. Those bars also have conveniences and means for adjusting them inwardly and outwardly. It also has a movable head, which operates to reduce the space in which the hides are, or, in more popular phrase, to squeeze the hides together; and it also has another corresponding head on the other side,—two instead of one. In view of those differences, there is an additional observation that I ought to make to you, perhaps. After an invention has been made and patented, and is described in a patent, it very frequently happens that there may be a radical and important improvement made upon that machine; that is to say, it may be possible for another inventor, or the same inventor, perhaps, taking the elements which are contained in that machine, and adding other elements to them, to make an apparatus which shall be even better for practical purposes than the original invention. That, gentlemen, if you are interested in the history of great inventions, you have found to be not only common, but, as I believe, universal. I think there is no instance in which the machines

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made after the first class of machines were not better for practical purposes, and in many cases infinitely better, than the original machines, which

contained the fundamental devices by which the work was done. This improvement, or this improved machine, may be patented also, and then the situation of the two patentees is like this: The first patentee can prevent the second patentee from employing his own machine; that is to say, the second machine contains his invention, and something more. It is not proper, then, for the original patentee to use the second machine, because it contains, not only his own invention, but an additional improvement or invention which is not his property. Nor is it competent or proper for the second inventor to use his own machine without the consent of the first, because it not only contains his own improvement, but also the original invention of the first patentee. Therefore, in the case of a valid original patent for a machine, and a valid patent for a useful improvement upon that machine, the parties are in this position: that the first patentee cannot use the second machine without the consent of the second inventor, and the second inventor cannot use his own machine without the consent of the first inventor; and, if either of them violates these rules, he violates the law, and is liable to an action in consequence.

Now, these differences to which I have made reference are in the nature of improvements. They purport to be such on the face of them; they are described as such in the patents which the defendants, or one of them, has taken out. They do not undertake to cover the use of a machine containing the central shaft, the crib, and the device for pressing the hides, but they undertake to describe and to claim improved methods of doing this. Without further describing, the position of the parties in this state of things is this: I have only to say to you that such differences between the machines used by the defendants and the machines used by the plaintiffs are not essential differences, and do not relieve them from the charge of infringement.

There is one difference as to which there is other testimony, and to which I have not made reference. There is a difference in the position or the attitude of the machines. One of them is said to be vertical, and one of them is said to be horizontal; one of them, as it might be said, stands upright, and the other lies down on its side. Now, from that change which the defendant Coupe made, taking this machine, (for, as I say, we assume that he knew of the existence of it,) and conceiving it to be an advantage to lay it down on its side,—to make it horizontal instead of vertical,—it followed that there must be a change made in the operation of the head or plunger which pressed the hides; because when it stood upright it would remain in its place by its own weight; if it was laid down on its side, the weight would be likely to fall out of place, and the weight of the plunger itself might be an inconvenience instead of a convenience in the operation. It was therefore necessary, if this machine was to be changed into a horizontal machine,—or if, to speak more accurately, the attitude of the mechanism was to be changed, it was necessary to make a different device for the purpose of pressing the hides. That is done in a very simple and

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ingenious way here, by using a comparatively thin false head or plunger, and moving it by a screw which

moves it forward and back as may be required. Those two changes, therefore, go together, as it were. One is a consequence of the other, and they form the most obvious difference to the eye between the two machines. Regarding that change, this claim is made by the defendants: They claim that the change results in a radically different method of operation of the two machines. To state it in the language used in the patent law, they claim that there is a difference of function, which means simply that there is a difference in the manner and result of the operation of the two machines, caused by laying one of them on its side. You are not, gentlemen, to assume that that is not possible. The change is slight in its general aspect. There is no change in the structure of the machine; it is simply a change in the attitude of the machines in relation to the plane of the horizon. Nevertheless, you are to consider that changes smaller than that have sometimes resulted in very large differences in the method of operation. You must, therefore, with unprejudiced minds, enter upon the consideration of the question, when you retire to your room, whether there be any difference in the operation of these two machines,—the one standing vertical, or erect; the other standing horizontally, or lying upon its side.

Now, what is the nature of the difference which the defendants claim? They claim that the difference is this: that the machine, in a horizontal position, will break hides so that they can be used for useful purposes in the arts, and that the machine standing in a vertical position will not accomplish this work. To use his phrase,—the phrase of the patent law,—the machine is not “operative;” or, to use a phrase equally accurate, and perhaps more easily comprehended, that the vertical machine will not do the work which it is appointed to do. If that be so, gentlemen, there is not only a radical difference in operation, but there is evidently a defect in the original patent, so that, if that claim made by him is true, he has two defenses, either one of which is a sufficient answer to this case. That is to say, while the machine described by the plaintiff as being a vertical machine will include horizontal machines also, and while it is true that a horizontal machine will infringe this patent for a vertical machine, if it appears that the operation of the machine is substantially the same in the one position or the other, on the other hand, you will understand that if it appears that a horizontal machine will work, and is operative, and that a vertical machine will not work, and is not operative, then you must confine the plaintiff to that interpretation and meaning of his patent, which confines him to vertical machines alone. It is not necessary for me to elaborate the legal principle contained in this. It would not interest you, and perhaps would tend rather to confuse than to elucidate what I have to say; and I therefore make one statement which, for practical purposes—for your purposes—covers the whole question. If you find that a machine made with this shaft, crib, and weight, and standing so that the shaft is vertical,—that is to say, is upright,—will not break hides,—will not do the work which it is expected to do,—then, in that case, the defendant is entitled to your verdict. If you find that it will do that work, then the

plaintiff is entitled to your verdict, so far as this question is concerned. You are not to consider, gentlemen, which does it the best. You are not to choose between the two machines. You are not to consider whether one machine makes more trouble than the other; whether one makes work more uniform than the other, and more desirable in the market; whether one is better able to perform the work; whether one does it with a less amount of power; whether it is easier in one to load or unload than in the other; whether it is more under the control of the operator in one case than in the other; or whether the crib in one case is more adjustable than in the other. These considerations are of no consequence. To put it more shortly, the question to be determined by you is not which of these is the better machine, but simply and solely, will a machine made with a vertical shaft do the work at all?

Now, as to that, you must consider the large amount of testimony that has gone in here. I shall not do more than to point out to you, without undertaking to describe it, such parts of the testimony as apply to this question. Will a vertical machine break hides so that they can be useful? You will understand, of course, that it is not expected of a vertical machine that it shall do the whole business of transforming the skin on an animal's back into a piece of lace leather; it is to perform only one part of it. This machine is not expected to skin the animal, nor to take off the hair, nor to dry it, nor to soak it with water, nor to cover it with stuffing, nor to perform any other of the operations, except simply to corrugate it; or, as it might be expressed, to crumple it,—squeeze it by crumpling,—so as to soften it, and adapt it for the purposes for which it is wanted, in connection with the other processes which are necessary in this important art of preparing leather. The question, therefore, is, will a vertical machine do the work of corrugating or crumpling leather so as to soften it? You have on that the testimony as to the machines that have been operated by Herman Royer, commencing, certainly, as early as the year 1873, because we then hear of the perfected machine, and some time,—I am not able at this time to state to you, from the testimony, the precise date,—some time back of that, and between that and 1868; because I think you will remember that it was reported by Royer that, for some little time after the machines were first made, he found some difficulty in operating them, owing to the fact that the stock was not properly prepared or properly stuffed, and some other considerations, so that for some time, which time is perhaps indefinite, there were practical difficulties in getting them into operation. They finally, however, according to his description of it, were operated. You will see from the testimony as to the machines used by the Messrs. Weatherhead & Thompson, in Pawtucket, which were vertical machines. There is said to be a difference between those machines and these, by reason of the fact that the rings are made in two parts, and are fastened together with hinges, and fastened or bolted together, if necessary, during the operation. That, you will understand, is entirely

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immaterial to this question here. The testimony shows, if believed, that they are vertical machines, and that the crib is closed when the operation is going on,

which is all we need to inquire about. On the other hand, you have the testimony of one of the defendants to the effect that he made one of these machines, and tried it, and it did not work. As to that, you will, of course, observe the testimony, which I think is not disputed, that, in the construction of that trial machine, the ordinary requirements of mechanical art were not observed. The machinist who constructed that machine was told to build one exactly like the drawings of the patent. He reported, as I remember the testimony, that there would be practical difficulties about working it, and the answer which he received from the defendant Coupe was not to regard that, but to construct it exactly as it was shown in the drawings. That is not the proper way to construct a machine, if you propose to try whether it be or be not an operative machine in the sense of the patent law. In building a machine for the purpose of testing it, or for the purpose of using it, if you are building it in accordance with the drawings of a patent, or with any other drawings, in fact, which are presented for that purpose, there are very many mechanical devices which will tend to make a machine practical and operative which are within the duty of a mechanic, and do not come within the limits of inventive art. Whether the screws were of the right length or not, whether they were of the right number to be convenient, whether they were put in the right place, for example, was immaterial. It was the business of the machinist who should undertake to construct and to try fairly a machine made after that patent, to put in the proper number of screws which experience and his knowledge of the art would show him, to put them in the proper places, and to make them of the proper and convenient length. So much intelligence is to be supposed in the public, and in all mechanics. It is not necessary that a patent, or the parties to it, should state such things as that, in order that they may bind the public. Such things are always understood.

You have also the opinion of Mr. Coupe, if I am not mistaken, that even if he had built this machine properly, according to the description of the patent, and even if he had employed proper mechanical skill in constructing it, even then it would not have worked, and he is of the opinion that no vertical machine ever can work. You must, therefore, consider these two classes of facts,—the opinion of Mr. Coupe, and the evidence which you have as to what has been done with these machines. Of course, I need not say to you that if you find that vertical machines have been operated, that is conclusive on the proposition that they can be operated. If you should find that it has been done; that leather has been softened and put into the market,—practical leather, salable leather,—it would, of course, be idle to say that such a thing cannot be done. Of course, what has been done can be done.

Mr. Thurston. In this connection, if your honor will pardon me, I desire to call attention to the fact that there is no machine like the patent which has been proved ever to have been used. Even Royer's machine is a machine without any lever attached to the weight.

Mr. Wheaton. The patent calls for pressure upon the top of that weight. A lever is the ordinary way of obtaining pressure in mechanics; and Mr.

Royer has testified that he used, the machine without any change whatever, just as it is described in the patent.

Mr. Thurston. No, sir.

Mr. Wheaton. I will find it, if you dispute it.

Carpenter, J. I think you will find it is true that nobody ever made a literal copy of that patent drawing anywhere. The patentee did not make a literal copy of it; Coupe did not make a literal copy of it; Weatherhead did not make a literal copy of it. Nor is it necessary that anybody should make a literal copy in order to bring himself within the Royer patent. It is not necessary for Royer to follow the lines of that drawing with absolutely slavish and Chinese accuracy, as I have already said to you, in order to construct a machine under the patent; nor is it necessary for Coupe to copy every line of that drawing in order to make himself, an infringer; nor does he give the patent a fair test by such a copy. Machines are to be constructed, as I have said before, with the admixture of intelligence. The patent is supposed to describe the machine with sufficient accuracy for the purposes of an ordinarily intelligent man who is acquainted with the art of machinery. It does not undertake to describe it to the mind of a person which is an absolute blank; which knows nothing either of machinery or any other subject. It does not undertake to describe a piece of mechanism which can be copied as a Chinese can copy, and still be operative; nor does it undertake to describe a piece of machinery in which you can make a variation, which would seem remarkable to a Chinese, and so escape infringement. So far as devices for operating this machine are concerned, they are not a part of the invention; they are notoriously the property of the whole world, and any of them may be used by either of these parties, or by the public, in driving these machines, of any other. There is no patent on the bevel-gears which run one of them, or on whatever device it is that runs the other. The device is not shown here. There is a crank put on there, as well as on there, [indicating models.] But whatever they use is the property of the public, and it is entirely immaterial to this controversy. So of whatever device may be used to press together the false head, or the false heads; any device may be used. The patentee does not describe any. He says it is pressed down. It is not necessary that he should describe any means. There are multitudinous means. A person might sit on it, and press it down. He might press on it with his hands. It might be pressed down with a lever; and it might be done, and is done, in a very economical and mechanically handsome way, as you will see by this device here, by means of a double screw there, which holds it exactly in the place where it is put, although one of the witnesses, I think, undertook to say that it was held there by yielding pressure. I think, perhaps, however, I do not overstep my duty when I say you will doubtless come to the conclusion that the false head, when moved by the screw in that way, is moved forward by a positive motion, and is held where it is put rigidly, whatever the witnesses may say.

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Gentlemen, in general, you ought to examine the testimony of the various witnesses in this case with a good deal of care, and with a conscientious

determination to ascertain what the real facts are. You doubtless observe that this case, in point of the amount of money involved, is of considerable, perhaps I may say of great, consequence. We know not of how much consequence, comparatively, it may be to the parties, because we know nothing as to their means, or whether the sums here in controversy may be to them large or small sums. Fortunate it is for us that we do not know. It does not concern us. You sit there, gentlemen, under the same responsibility under which I sit here, as the ministers of justice, within the limits of our jurisdiction here, to do exact justice between these men, according as the testimony fairly and honestly appears to us, without any regard to the consequences which it may have upon either of them, or, even if such were the case, upon ourselves. We have no pressure except the pressure of our own consciences, and no duty except carefully and conscientiously to observe and weigh the testimony. Make up your minds, for your part, as to whether, upon this issue which is left to you, the testimony inclines to the one side or the other, and, upon whichever side you think the greater weight of testimony may be, give your verdict in that direction.

If you find that the defenses set up by the defendants are insufficient, it will be necessary for you to determine the question of how much damages ought to be paid. Now, it is the duty of the plaintiff to point out the damages to you, to satisfy you what they are, and to discriminate the damages done to the plaintiff by the use of this patented mechanism from the damages done to him, if any have been done to him, by the use of any other devices which the plaintiff may have patented, or which the defendants might have used.

The course taken by the plaintiff to show the amount of damages is a proper course. He undertakes to show the value of this invention to any person using it, and the law deems it a fair inference that, whatever value has been received by the defendants through the use of this invention, so much has been taken away from the plaintiff, and he is entitled to have it restored to him. Upon the amount of those damages you have the testimony, if I remember right, of only one witness. Mr. Royer himself has made an estimation, as he states, of the amount of money which would be saved by the use of this particular mechanism for the performance of this particular operation in the course of the production of raw-hide leather. There is no evidence as to the amount of advantage or profit from the employment of other devices for other purposes, either for the preparation of the leather before it goes through this machine, or afterwards; but you heard his testimony to the effect that three pr four dollars a hide is not an extravagant estimate of the amount of saving which would be made by the use of this mechanism of his, over and above any other device which was at the time of his invention in use, and which the public had a right to use. That estimation, if you are satisfied with the fairness of it, may be taken as the basis of your calculations. You ought, however, to observe the statement made by the plaintiff himself, that, for the purpose of certainty, or for other purposes, he chooses that you shall take a considerably smaller sum,

and which, according to his testimony, is clearly within the value of this invention; that is to say, the sum of one dollar for each hide. You will bear in mind that it is one dollar for a hide which is thus estimated, and not one dollar for a side of leather. If you believe his testimony to be sound, and in accordance with the truth, then you may make up your verdict on that basis; that being, I think, the only testimony in the case as to the amount of damages.

Now, gentlemen, if there is anything that I may have omitted, or that you think I have misstated, I will hear any suggestions you have to make.

Mr. Thurston. I will direct your honor's attention to one matter which has been omitted, as I suppose by inadvertence, and that is, that if the jury believe the letter of Herman Royer, and his testimony that the facts contained in the letter are true, then Herman Royer was the inventor of the machine, and Louis Royer had nothing to do with it, and the verdict must be for the defendants. Your honor was in error in supposing that I claimed that Louis Royer was the inventor. My position was that Louis Royer had made an invention, and built a machine to practice the invention that he had made, but never put it in practice, abandoned it, and Herman Royer took it up. Herman Royer wrote the letter which I have put in evidence, and upon that I base the request. With reference to damages, your honor remarked that there was only one witness upon that question. I beg to call your honor's attention to the testimony of Mr. Coupe that there was no saving or profit in the use of a vertical machine, made in accordance with the description in the patent, over and above the prior fulling-machines that were known to the art long previously; and also to the fact that the gross sum that he receives for the qualities of hides, to which his attention was drawn, is \$3.52 per dozen; and that there is a saving of only 52 cents over the Page process.

Carpenter, J. Where is that stated?

Mr. Thurston. It appears in Mr. Coupe's testimony.

Carpenter, J. Mr. Coupe says there is no saving at all, because he says you cannot make it at all by the patented machine.

Mr. Thurston. He says it cannot be done by the patented machine, but he says that the machines put into the market, or, rather, the Weatherhead & Thompson machines, are not these machines; they are lace-leather machines. But, first, I desire to request the instruction upon that letter of Herman Royer.

Mr. Wheaton. The Page leather is another article.

Carpenter, J. That is argument. I do not care to have it argued, gentlemen. As to the meaning of the letter written by Herman Royer, as bearing upon the question of whether this was a joint invention or the invention of one or the other of the parties, I shall not undertake to tell you what that letter means, nor what any of the rest of the testimony means that bears upon that question. You are to consider the letter, and all the other testimony,

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and from that you are to determine who was the inventor of this mechanism,—whether it was Louis Royer, or

Herman Royer, or whether it was the two together, as I have already stated to you more at length. If you find that it was the invention of Herman Royer, or if you find that it was the invention of Louis Royer alone, then, in that case, you need not go any further, as I have already said, but must find your verdict for the defendants. If you find that it was invented by both of them, one man proposing or suggesting one part, and another one suggesting another part,—one suggesting a certain thing, and another suggesting modifications,—then the patent is valid, as far as that matter is concerned; all of which, as far as I can understand, is substantially what I have said to you before.

My attention is called to the fact that there is other testimony regarding the amount of damages besides that of Mr. Royer. It is true, no doubt, that the defendant Coupe has testified that there is no advantage in the use of this patented mechanism; that it is not worth anything to him who uses it. His testimony is that it is not worth anything by way of advantage to him who uses it, because it is not worth anything to anybody, and cannot be made to make leather, according to his understanding of it,—according to his testimony. Of course, if that be true, it not only reduces the damages to nothing, it is not only conclusive that there should not be any damages at all, but that there should be a verdict for the defendants. So that what I said before is strictly true, that, assuming that there are to be any damages at all,—assuming that the plaintiff is entitled to a verdict,—the only testimony upon the subject of the amount of the verdict is that of Herman Royer.

Mr. Wheaton. If your honor will allow me, to avoid any possible mistake of the figures that I made and handed to the jury, I desire to say, in the course of my argument, my associate added up the number of sides which the book-keeper had given between the fourteenth of July, 1879, and the tenth of March, 1885. We divided that by two, and it amounted to sixty-six and some odd thousand dollars, making it up at one dollar per hide.

Carpenter, J. The jury will understand, then, that the figures that were stated by the counsel for the plaintiff are the figures which he says are the result of a computation, and show the number of hides.