a solid metallic substance of the same thickness,) the device of the appellant must be considered not only different, but much superior. Its superiority has been still further shown by actual, practical experiment. The facts relating to the experiment, and proved to my satisfaction, are, that one of Hebbard's water-cooling pitchers, made as described in his specification for a patent, and one of Stimpson's of equal size and capacity for holding water, were taken and placed upon a counter or work-bench side by side, so as to be exposed in all respects to the same currents of external air, and other like causes for varying their temperature, and that when thus placed, there was put into each an equal quantity of water from the same pail, which being done, two square blocks of ice each of the weight of one and a half pounds avoirdupois weight were put respectively into the said pitchers, and they were closed by the covers thereof. After allowing the pitchers to stand several hours, the fact was noted that the ice in the said Stimpson's pitcher was all melted, but that in Hebbard's pitcher—having the felt elastic packing—the ice did not entirely melt or dissolve for one and one-half hours after the ice in Stimpson's pitcher had entirely disappeared.

(This proof was informally admitted under the special circumstances of this case.)

For the aforegoing reasons, I think the appellant's claim to a patent for his improved water-cooling pitcher, as described in his specification, is sustained, and that a patent ought to be granted to him therefor accordingly.

*Charles L. Burritt*, for the appellant.

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## IN RE H. & F. I. L. BLANDY. APPEAL FROM REFUSAL TO GRANT PATENT.

PATENTABILITY—STEAM-ENGINE—HOLLOW BED-PLATE—DOUBLE USE.—The application to a portable steam-engine of a hollow bed-plate fastened to the boiler, and supporting the operative parts of the engine out of contact with the boiler, whereby these parts will not be affected by the expansion and contraction of the boiler: *Held*, not to be a patentable invention, in view

Statement of the case.

of the fact that similar bed-plates had previously been used in various parts of the engine for a similar purpose. It is an obvious application and a mere double use of an old device.

INVENTION—PRINCIPLE—DOUBLE USE.—An invention must involve a new principle. When the principle of the alleged invention has been discovered and applied before, the new application of it will be what is called a double use. In such cases, although there may be in the new application some degree of novelty—something may have been discovered or found out that was not known before—yet, unless the new occasion on which the principle is applied leads to some kind of new manufacture or to some new result, it will be but a double use.

(Before MORSELL, J., District of Columbia, January, 1858.)

## STATEMENT OF THE CASE.

The alleged invention in this case consisted in providing a portable steam-engine with a hollow bed-plate, substantially in the form of an eight-inch pipe about eight feet in length, which was attached by feet or saddles to the side of the boiler. The working parts of the engine were attached to the outside of this pipe by suitable flanges, and were thus removed from contact with the boiler, thereby preventing the injurious effects occasioned by the unequal contraction and expansion of the boiler-plates. The application was rejected upon references showing various kinds of hollow bed-plates applied to various parts of the engine—no one of the machines referred to, however, showing the precise form and construction adopted by the applicants.

Some time after the decision in this case, the applicants filed a new application for the same invention, May, 1858, with the following claim: "The application to portable steam-engines of a hollow continuous bed-plate, in the manner substantially as described, for the support or attachment of operative parts of the engine, whereby the latter in working is rendered independent of the contraction and expansion of the former, and the boiler relieved from the direct strain of the engine, as set forth."

This application was accompanied by a number of affidavits, to the effect that the invention thus claimed was a marked improvement in the art, and was productive of the most beneficial effects. The application appears to have been passed to issue without objection, and was patented August, 1858. The patent was afterwards sued on and sustained. (Blandy *v.* Griffith, 6 Fisher, 309,

and Blandy *v.* Griffith, 6 Fisher, 434.) The rule of practice referred to in the decision was as follows:

"114. Should there be, notwithstanding these reasons, a second rejection, the applicant may, in person or by his agent, or in writing, as above contemplated, bring the matter before the Commissioner, who will, if possible, examine the case in person; but should he not be sufficiently at leisure, it will be referred to a board of examiners. The decision attained in either of these modes will be final so far as the action of this Office is concerned. The only remaining remedy will be by appeal in those cases allowed by law." (Rules of 1854.)

MORSELL, J.

Appeal from the decision of the Commissioner of Patents refusing to grant a patent to said H. & F. I. L. Blandy on their application for an improvement in portable steam-engines.

The claim as amended is described in the following terms: "Having thus described our improvement, what we claim as new, and desire to secure by letters-patent, is the application to portable steam-engines of a hollow bed-plate, in the manner substantially as described, for the support and attachment of the operative parts of the engine, whereby the latter in working is rendered independent of the contraction and expansion of the former, and the boiler relieved from the direct strain of the engine, as set forth."

On the 15th of June, 1857, the Commissioner says: "Your application for improvement in portable engines has been examined under rule 114, and a patent thereon refused."

Three reasons of appeal are assigned: First. Because the Office has failed to give a reference showing a device applied in the same manner and for the same purposes as that claimed by the applicants. Second. Because the reference given to the engine described in Lardner, and shown in plate 12 of the same, cited in the Commissioner's decision as an apposite reference, cannot be considered as a reference at all, as it is not used as a support for the working parts of the engine, but merely as a heater to economize the heat of the waste steam. Third. The opinion of the Office, to wit, "the necessity for some provision to accommodate contraction and expansion in machines requiring an extended metallic surface,

is so perfectly familiar to every good mechanic that no structure of such material that had to encounter great changes of temperature would be attempted without some such accommodating provision," cannot be considered as a just cause for refusing a patent to the applicants; as, first, the law does not recognize a necessity for the invention of a machine, &c., to effect a useful result, as a reason for refusing a patent on the same; and second, a mere belief or reason on the part of the Office, without assigning proper references to substantiate the same, is not a reference, as contemplated by law, and hence is not a lawful reason for refusing the patent.

The Commissioner states as the general ground for his decision "that, as in the construction of every character of steam-engine no more metal is used than in the sound judgment of the builder is required to give it strength and durability and adapt it to its particular position, it will readily be seen that the making of one part of the engine solid and another part hollow must be of common consideration, arising out of the various circumstances of locality, use, durability, and economy. Certain references have been given to this position which show, from an early date to the present time, that not only in portable but in all classes of steam-engines the hollow or tubular character of the structure has been made of importance, and such parts of the engine as were thus made have been used for various purposes; to show which, particular references are given to Lardner on the Steam-engine, plate 12, page 148, in 1802, where the hollow or tubular quality is fully employed, the tubular part of the structure serving to sustain the smoke-stack of the boiler, the exhaust pipe, and part of the valve gear, while it is made to serve the very useful purpose of a feed-water heater. In Repertory of Patents, second series, volume 2, page 175, is shown an engine the entire base of which is hollow and used as a water reservoir—invented in 1802. Herbert's Encyclopædia, volume 2, page 701, shows the hollow bed-plate used for two purposes, where compactness appears to have been a prominent intention of the inventor, two of the compartments being for the working cylinders and the third designed for the condenser."

The Commissioner then passes on to more recent dates, and says: "The references in the descriptive catalogue of the London

exhibition (page 375) show portable engines with hollow supports sustaining different parts. Burrell's (page 368) shows the cylinder and valve gear sustained on a hollow frame or box placed above the furnace of the boiler, with the bearing of the fly-wheel upon another box near the smoke-box of the boiler. The same may be said of Barrett's engine, illustrated on page 377. Though the box supporting the cylinder on the boiler in this engine is shallow, it is evidently not solid, but hollow. The same is evident in Turner's engine, illustrated on page 391, and Hornby's, on page 396."

As tending to prove the same position, the Commissioner refers to the files of the Office, showing a number of cases particularly stated by him; from all which the Commissioner says: "Is it not very clearly and fully shown that there is no novelty in constructing engines of any special character with hollow bed-plates or supports? * * * The applicant insists, notwithstanding this mass of strong and pertinent evidence, that he is entitled to a patent on this application, because the references do not show that the hollow bed-plate was designed by others for the same purposes and for fulfilling the same intentions contemplated by him. It is not proposed to show that the position assumed by the appellant is incorrect; that is, that others have not used the hollow bed-plate for the same purpose and with the same intentions, for the great reason that his premises are without any support derived either from the enactments of Congress concerning patents, from the practice of the Patent Office, or from the decisions and rulings of the courts. It is therefore of no moment whether he is the first to use hollow bed-plates for the purposes and with the intention named by him or not. The laws do not in any degree whatever set out purpose or intent as a cause for granting a patent. Only a few rulings and opinions will therefore be quoted. Reference is given to Phillips on Patents, 106; Curtis on Patents, p. 4, sec. 4; Bean *v.* Smallwood, 2 Story, 408; Winans *v.* Providence Railroad Company, 2 Story, 412; and the opinion of Judge Cranch in the appeal case of John F. Kemper from the decision of the Commissioner of Patents" (*ante*, p. 1).

This was the state of the said case brought before me on the day and place appointed by me for the hearing thereof, at which time and place an examiner on the part of the Office appeared,

with all the papers, &c., in said case, and on the part of the appellant his attorney appeared, and upon his application was allowed to propound certain interrogatories to said examiner in explanation of the principles of the said improved machine, according to the provisions of the act of Congress, which said examination will be herewith sent, (reference thereto will fully appear.)

In answer to the first interrogatory, the examiner says: "I have frequently seen engines running with hollow bed-plates."

Fourth interrogatory: "Does the working of portable engines strain the boilers?" Answer: "It depends altogether on the strength of the boiler and the power of the engine; it has no tendency to strain it if the boiler is sufficiently strong."

Sixth interrogatory: "Is the power of the engine usually proportioned to the capacity of the boiler?" Answer: "The boiler is usually adapted to the engine."

Ninth interrogatory: "Will the expansion and contraction of the boiler, as its temperature is varied and lowered, strain the working parts of the engine if attached directly to it?" Answer: "That depends in a great measure upon the construction and arrangement of the engine and the kinds of metal used in its various parts."

Tenth interrogatory: "How? What different kinds of metals effect this?" Answer: "All metals do not expand equally by heat, and hence an engine might be injured more or less by expansion when constructed of different kinds of metals."

Eleventh interrogatory: "Will the expansion and contraction of the boiler as its temperature varies strain the working parts of the engine if attached directly to it, both being constructed entirely of the same metal?" Answer: "I should think not."

Twelfth interrogatory: "Will the appellant's improvement have a tendency to prevent the straining of the engine and boiler, as arranged and combined, the engine and boiler being of the same metal?" Answer: "Not as little as if there was not any cylinder or bed-plate interposed."

Thirteenth interrogatory: "If the boiler and engine be made of different metals, how then?" Answer. "If made of different metals, there would be more injury from expansion and contraction.

Fourteenth interrogatory: "Will the appellant's improvement

have a tendency to prevent the straining of the engine and boiler, as arranged and combined, the engine and boiler being both made of different metals?" Answer: "I should think not."

Fifteenth interrogatory: "When two pieces of the same kind of metal are secured to each other, and are unequally heated, will they have a tendency to strain and burst from each other?" Answer: "Yes."

The case was then submitted on the written argument of the appellant's counsel and the proceedings aforesaid in the cause.

For the purpose of considering the subject of controversy before me on this appeal in the fullest manner, those parts of the argument of the appellants' counsel above alluded to, which may be thought necessary, will be noticed. Counsel supposes "that the Office have totally misunderstood the nature and scope of the claim (of the appellant), and have given all their references with a view of showing that hollow supports for engines had been used before. This [he says] we have never presumed to deny; but these references are necessarily predicated upon the supposition that we claim a hollow bed-plate of itself, without reference to the manner in which it is constructed, applied, arranged, and combined with the boiler, which is not the case. This [he says] forms the grounds of his first and second reasons of appeal; * * * appellant's claim consists of a plan for a peculiar arrangement and combination—an interposition of a single hollow, continuous bed-plate between the boiler and engine, upon which and to which the entire working parts of the latter are supported and attached, the bed-plate being mounted upon and secured to the boiler, by which certain new and beneficial results are obtained." Further, it is contended that by the device a single hollow bed-plate is used, instead of two or three, for the support of the entire working parts of the engine; that thereby a new and beneficial result is produced, which cannot be effected by the use of two or more hollow supports arranged in the same manner; that it costs less, and is more economical. Whether the references are pertinent or not, must depend upon a comparison between them and the invention in this case, as it is described and claimed and set forth in the specification hereinbefore recited; that is to say, "the application to portable steam-engines of a hollow bed-plate, in the manner substantially as described, for the support and attachment of the operative parts

of the engine, whereby the latter in working is rendered independent of the contraction and expansion of the former, and the boiler relieved from the direct strain of the engine, as set forth." The references are intended to show that the alleged invention is merely a colorable variation or a double use, and not a substantial invention. The purpose and object in view, as very clearly appears, was, by a proper regard to the portableness of the engine, by an isolated, independent condition of the engine and the working parts of the boiler, to secure them from being injuriously affected by the contraction and expansion of the boiler, and to secure the boiler from any consequent strain from them. Assuming that such would be the effect by the contrivance and plan described, will it be new? The references are given to show that it would not.

As a guide in the investigation, it will be proper to state some of the rules of patent law applicable to the subject. It must involve a new principle. Where the principle of the alleged invention has been discovered and applied before, the application will be what is called a double use. In such cases, although there may be in the new application some degree of novelty, something may have been discovered or found out that was not known before, yet, unless the new occasion on which the principle is applied leads to some kind of new manufacture or to some new result, it will be but a double use.

Again, if the same purpose has in other instances been accomplished by the same means substantially, the use of those means on a new occasion does not constitute a sufficiency of invention. (See Curtis, sec. 27.)

Again, (Curtis, sec. 40,) there must be some new process or some new machinery used to produce the result.

I will now consider the objections made by the counsel on behalf of the appellants to the references before mentioned. In doing so, however, I shall only notice a few, all the others having been offered as tending to sustain the same thing.

The first I notice is the objection to Burrell's Catalogue of London Exhibition, 368. This, as stated in the Commissioner's report, shows the cylinder and valve gear sustained on a hollow frame or box placed above the furnace of the boiler, with the bearing of the fly-wheel upon another box near the smoke-box of the boiler.

The objection to this, in the language of the counsel, is that "supposing, for the sake of argument, each of these parts are supported upon separate hollow standards or bed-plates secured to the boiler, the same effect will be produced with these as if the various parts of the engine had been secured directly to the boiler, because, as the boiler contracts or expands, the hollow bed-plate will necessarily move with it in those movements, and produce precisely the same effect as if the engine had been secured directly to the boiler, for as they move, the parts of the engine secured to them must also move, thus destroying their proper relative position."

If this reasoning be correct, as perhaps it is, is it not applicable as an objection to the scheme of the appellants? Their bed-plate, on which the working parts are supported, is secured to the boiler at one or perhaps two points; that is, at each end. If, therefore, any such disaster should occur, it is difficult to conceive how the peculiar contrivance or fastenings of the continuous hollow bed-plate of appellants' alleged invention should effectually save said parts from like effects of the shock.

The next which I shall notice is to be found in the Repertory of Patents, second series, volume 2, pages 175, 176—an engine the entire base of which is hollow, and used as a water reservoir, invented in 1802. It is objected that the hollow cistern forming the entire base of the engine "is not supported upon and secured to the boiler, but is stationed upon the ground, and therefore cannot be in point."

Considering, as I have done, that the principal feature in the alleged invention of the appellants claimed by them as new was the independent, isolated contrivance of their hollow continuous bed plate, I am utterly at a loss to perceive the weight of this objection in support of that idea, or how it can be consistently reconciled with what appears to be insisted on in the objection just before mentioned.

If it is intended to be used to show the want of portableness, judging from the only evidence before me—that of the description given in the book referred to—I am not satisfied that it warrants me in drawing any such conclusion. It is in these words: "Its combination of parts form a perfect engine without requiring any fixture of wood or any other kind of framing than the ground it stands upon, and is transferable without being taken to pieces."

The same objection is urged to the reference given in Herbert's Encyclopædia, vol. 2, page 701: an engine (as stated by the Commissioner) which shows the hollow bed-plate used for two purposes, where compactness appears to have been a prominent intention of the inventor, two of the compartments being for the working cylinders and the third designed for the condenser. The same reply may be made to this objection as to the preceding one.

The next objection I shall notice is the one taken to the case of Barrett, to be found in the Descriptive Catalogue of the London Exhibition, page 375. The objector says that it is mounted and supported in precisely the same manner as that of Burrell's, before alluded to; that is to say, the various parts of the engine are supported upon several standards or bed-plates, and not upon one, which alone can effect the purpose and remedy the defects designed by the appellant's improvement. The description given of it by the inventor is: "The engine is fitted and fixed to a separate cast frame, relieving the boiler from all vibration or strain." The specific objection to this seems to be that by appellant's invention, his one bed plate alone effects the whole that the several standards or bed plates of this machine can do, and dispenses with them. This involves a separate principle from a mere analogous use, and will be hereafter considered.

It will appear, I think, on a review of the case at this stage of it, that in the construction of the invention by the appellants, although there are differences in point of form from those which are shown by the references, substantially they are analagous. The principles of the leading contrivances appear alike; for instance, they are substantially alike in the independent isolated hollow plate—their mode of operation answering the purposes of preventing any injurious effects that might be occasioned by an immediate contact of the working parts of the engine with the boiler. In one of them it is expressly stated as the purpose and effect "to secure and relieve the boiler from all vibration and strain." They are used or applied in the same kind of combination. As to the matter respecting the portableness, I have already said enough to show that this point is not materially affected by it. The case, therefore, falls within the principles of law as stated by me hereinbefore.

Opinion of the court.

The claim of right to the patent is, however, supposed to be sustained upon the ground "that as by using a single hollow bed-plate, instead of two or three as formerly, for the support of the entire working parts of the engine, a new and beneficial result is produced, being more economically or beneficially enjoyed by the public." For this position Curtis, sec. 401, is referred to as authority. It is there said: "The claim may be for the use of a known thing, in a known manner, to produce effects already known, but producing those effects so as to be more economically or beneficially enjoyed by the public, which the law decides is a patentable subject."

If the facts be as stated, the rule will be applicable, and the claim sustainable. The claim was three times examined and rejected. Examiner Baldwin, to whom it was last referred for revision, says: "The necessity of some provision to accommodate contraction and expansion in machines requiring an extended metalic surface is so perfectly familiar to every good mechanic that no structure of such material that had to encounter great changes of temperature would be attempted without some such accommodating provision. To build a portable steam-engine with a view to make it encounter the changes of temperature which its use involves, is therefore no new invention."

The testimony of Doctor Everett, on oath, examined before me on the hearing of this cause, at the request of and by appellant's counsel, to interrogatories propounded by him, is very strong against this branch of the claim, and his answers being in response to questions put by appellant's counsel must be received and respected according to the legal rule of evidence on the subject. I will repeat a part of what has been before stated.

The eleventh interrogatory put to him was: "Will the expansion and contraction of the boiler, as its temperature varies, strain the working parts of the engine if attached directly to it, both being constructed entirely of the same metal?" Answer: "I should think not."

Twelfth: "Will the appellant's improvement have a tendency to prevent the straining of the engine and boiler, as arranged and combined, the engine and boiler being of the same metal?" Answer: "Not as little as if there was not any cylinder or bed-plate interposed."

Syllabus.

Fourteenth: "Will the appellant's improvement have a tendency to prevent the straining of the engine and boiler, as arranged and combined, when both are made of different metals?" Answer: "I should think not."

The proof derived from these two gentlemen—experts of great respectability, as they must be considered to be—I think must be considered as preponderating in weight over all that has been produced on the part of the appellant.

From all which my conclusion and opinion is that the claim for a patent as set up by the appellant in this case has not been sustained; that there is no error in the decision of the Commissioner, and that the same ought to be affirmed.

*P. Hannay*, for the appellant.

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CHARLES MOWRY, APPELLANT,

*vs.*

H. B. BARBER, APPELLEE. INTERFERENCE.

PUBLIC USE OR SALE—JURISDICTION OF THE COMMISSIONER.—Under the seventh section of the act of 1836, directing the Commissioner to cause an examination to be made of the alleged new invention, and to issue a patent if it shall not appear, *inter alia*, that the invention had been in public use or on sale with the applicant's consent or allowance prior to the application, the Commissioner has authority to investigate and determine the question of public use arising in connection with an application for a patent.

WITHDRAWAL OF APPLICATION—EFFECT OF.—The withdrawal of an application and the return of the fee under the seventh section of the act of 1839 is a final abandonment of the application, and effects an entire extinction of all protection, saving, and privilege thereunder. Such an application cannot be revived by filing a new application for the same invention. Such new application will not relate back to, or be considered as a revival of, the withdrawn application for the purpose of avoiding the objection of intervening public use.

PUBLIC USE OR SALE—TESTIMONY IN INTERFERENCE.—When it appeared from the testimony taken in an interference proceeding that the invention claimed