sider that if there be real patentable novelty in the combination, a refusal to grant a patent would operate irremediable injury; whereas, if it be not substantially new, the patent will not prevent the public from the use of the combination; but being only *prima-facie* evidence in his favor, a jury of the country could protect a party charged with infringement upon evidence given that there is no novelty. Giving, then, to the applicant the full benefit of my doubt, as also of the most favorable interpretation of his claim, I am of opinion that there is error in the decision of the Office. Perhaps in concluding this opinion it may be allowed that I suggest to the applicant to amend his specification before the emanation of a patent, so as to make the language of his claim accord unequivocally with the intention which I have ascribed to the terms used therein.

Z. C. Robbins, for the appellant.

IN RE ALONZO HEBBARD. APPEAL FROM REFUSAL TO GRANT PATENT.

INVENTION--ICE PITCHER—COMBINATION.—In an ice pitcher, the combination of an interior lining of porcelain or glazed ware to resist the action of acids, an outer metallic shield and an interposed elastic non-conducting material, to prevent the fracture of the porcelain and intercept the rays of heat: *Held*, Not to be anticipated by a double-walled pitcher composed entirely of metal, in which the intervening air space was not designed, and did not in fact operate, as a non-conducting medium.

EQUIVALENTS—ADDITIONAL EFFECTS.—If the change introduced by the appellant constitutes a mechanical equivalent in reference to the means used by a patentee, and besides being such an equivalent it accomplishes some other advantages beyond the effect or purpose accomplished by the patentee, such further advantages may make it a patentable subject as an improvement upon the former invention.

SAME—NEW COMBINATION—OLD PURPOSE.—The rule that an old device or combination applied to a new purpose is not patentable does not apply to the case when a new combination is applied to an old purpose.

(Before MORSELL, J., District of Columbia, October, 1857.)

STATEMENT OF THE CASE.

The patent issued to Hebbard, in accordance with this decision, November 3d, 1857, No. 18,546.

MORSELL, J.

The claim of the above-named Alonzo Hebbard, as set forth in his specification filed with his petition in this case, is in the following words: "What I claim is the use of the combination of the woolen cloth or felt covering as an elastic non-conducting packing for a porcelain or glazed-ware pitcher with the said porcelain or glazed-ware interior pitcher and external metallic shell or pitcher, for the purpose of making a water-cooling pitcher, as hereinbefore set forth." The nature of the invention consists in the use of the combination, as above stated, for the purpose of making a frigorific pitcher, and at the same time of great lightness, as well as non-destructable from the action of lemonades or other acidulated articles or liquids used as cooling drinks, or for other purposes. In the course of the examination of this claim a reference was given to the rejected claim of Haggard and Bull, 29th of September, 1855, as being substantially the same invention as Hebbard's, which therefore presents no patentable novelty, as appears by the letter of the Acting Commissioner dated the 1st of November, 1856. He states that "the use of non-conducting materials in double-walled vessels is common, and its application to the case where the outer wall has been used to protect the inner one is fully suggested thereby; and among known non-conducting materials the choice of one that is elastic, so as not to communicate a blow to the glass, is also directly and fully suggested by the common practice of using elastic packings for glass vessels, such as flasks and demijohns. * * * No new invention, therefore, is involved in the case, and a patent is refused."

As the final decision seems to be placed upon the authority of a different reference, and the one given above was not thought sufficient, I pass immediately, therefore, to the final decision, dated 24th July, 1857. The Commissioner in his opinion says: "This application has been rejected on a reference to the rejected case of Haggard and Bull. That reference does not satisfy me. The object is not to construct a water cooler; and although plas-

ter of Paris (a good non-conductor), or other suitable material, is introduced between the external and internal surfaces, it does not appear to have been in consequence of its non-conducting properties, but merely for the purpose of cementing the two surfaces together. Felt would not have answered the purpose of Haggard and Bull; plaster of Paris would not have fully satisfied the purpose of Hebbard, and some other similar materials would have been still less suitable. Stimpson's ice pitcher (patent No. 11,819, October 17th, 1854, antedated April 17th, 1854) seems much nearer anticipation of the present invention. It shows the interposition of a non-conducting substance between an external and internal wall or surface. It is true that the internal wall of Stimpson's pitcher is metallic, while that of Hebbard's is of porcelain or glass-ware. If there is any merit in this change of material, the claim should be founded entirely on that change. A similar remark will apply to the use of felt instead of confined air; so that, as the case now stands, I think the substantial combination the same as is found in Stimpson's ice pitcher, and that, therefore, the patent should be refused."

From this decision the appeal has been taken by Mr. Hebbard, who has filed five reasons of appeal.

The first three reasons are, in substance, that the nature of the jurisdiction and duties of the Commissioner of Patents are, as it relates to the granting of patents, supervisory and analogous to the duties of the Attorney-General prior to the act of July 4th, 1836, and that upon deciding that the objections raised by the examiner were unsatisfactory, he ought to have reversed the said decision, and that he was estopped from taking up new matter for cause of rejection.

The fourth reason is that the Commissioner of Patents having decided that the objections were not satisfactory, thereby concluded all argument thereon, and that the only issue on appeal from the Commissioner's decision is on the new issue made by him.

The fifth reason is that the new objections raised by the Commissioner of Patents, by reference to Stimpson's ice pitcher, do not cover or interfere with the claim of the applicant for his invention of a water-cooling pitcher, and therefore, &c.

To these reasons the Commissioner has replied: "The first

point raised by counsel for appellant is that the Commissioner's duties are administrative and supervisory; but what is claimed under this head is contrary to the meaning and letter of the sixth and seventh sections of the act of July 4th, 1836. The second, third, fourth, and fifth points all proceed upon the assumption made in the second point, that the Commissioner in deciding that the objections raised by the proper examiner 'were not satisfactory' could not go any further, and had no right to bring forward additional reasons or facts upon which to refuse a patent. But this assumption is clearly untenable. The language of the law in regard to the examination of applications is that 'the Commissioner shall make or cause to be made an examination,' &c. Every examination is in the eye of the law the act of the Commissioner, and the result is always signed by him. The matter of referring a case to an examiner, and its subsequent revision by the Commissioner himself, is only a thing of internal administration. Legally, the acts are all acts of the Commissioner, and there can be no doubt of his right to review and modify in any respect at his pleasure any decision refusing a patent. But besides this, the new matter, so called, which the Commissioner brought forward in the final decision, is matter the substance of which was tacitly understood in the previous actions of the Office, to be recognized by the applicant himself as old, viz., the device of a double wall in coolers, with a non-conductor of some kind or other between them, such as air. The reference finally given to the Stimpson pitcher was only a reference to a particular case, showing the general fact which the Office all along took it for granted the applicant knew; for so far as the memory of the examiner goes, such general fact, not questioned in the claim, had not been questioned by the applicant in any other way. In the final decision of the Commissioner, where he states that the reference to Haggard and Bull does not satisfy him, it is manifest he does not mean to say that that case does not exhibit the fact for which it was first referred to, viz., an inner vessel of glass or porcelain, protected by an outer one of other material; that single thing alone would not furnish a good ground to refuse a patent. This is all we are authorized to understand the late Commissioner to say. The main question at issue is whether the present is a case where a new association of old devices can also be said in

any just sense to be a combination of that kind which the courts and the Patent Office regard as a good subject for the grant of a patent. The Office has held that in many cases the new association of or permutation upon old devices does not constitute a true combination. One instance only of this the Office has time to refer to now, and that is the case cited in section 26, page 23, of Curtis on Patents, viz., Bean *v.* Smallwood, 2 Story's Rep., 408, 410. This is where an old device is claimed in a chair, and the patent was declared void because it had been used in other things."

On the day and at the place which had been appointed for the hearing of said appeal, an examiner on the part of the Office appeared, and produced and delivered all the original papers in this case, and also those in the two cases to which references were given. On which occasion the appellant also appeared by his attorney, and put in his written argument in the case, and the same was submitted.

It appears from what is stated in the final decision just recited that upon a reconsideration and review of the grounds on which the Acting Commissioner had rejected the claim of the appellant, also hereinbefore recited, they were deemed unsatisfactory and insufficient. The reason assigned is that the object was to construct a different thing; and although a good non-conductor (plaster or other suitable material) is introduced between the external and internal surfaces, it does not appear to have been in consequence of its non-conducting properties, but merely for the purpose of cementing the two surfaces together. This, I think, is entirely correct, and amounts to a complete repudiation of any authority or application of said reference to the present case, and this, it is thought, is all the answer to that reference which ought to be made on this appeal. If, however, anything more could be required to show the Commissioner's meaning, it appears in his having placed and rested his decision on the reference to Stimpson's case, which claim, according to the specification, it will be proper here to state that it may be seen how far the tests adopted by the Commissioner can be used in application to the differences between what the appellant claims to be his invention and that which Stimpson claims to be his. The object with both certainly is that they should be water-cooling pitchers with double walls.

The interior as well as exterior wall of Stimpson's are of metal; of the appellant's the interior is of porcelain and the exterior of metal. In the further particular description of his claim, Stimpson, in his specification, says: "I do not claim the double wall as a means of intercepting heat, nor do I intend to claim such a device as applied to any structure or vessel whatsoever for the purpose of economizing in ice, unless attended with all the advantages and results of my double-wall ice pitcher. It is obvious that refrigerators, urns, tumblers, double plates, and such like articles occupy special positions in household economy, and distinct from my double pitcher, and that no one of them can be made to subserve all its purposes and ends, and I therefore disclaim them, one and all, and confine my claim to the double-wall pitcher. What I claim, therefore, as my invention is the double-wall pitcher, the same consisting in a pitcher with double sides, double bottom, and a hinged cover, from which the liquid contents are to be poured through or over a nose or lip, substantially as herein set forth. I am aware that a lever has been used upon the covers of molasses pitchers for raising the covers, and this I do not claim; but I do claim the employment of a chain or string attached to the handle and lid of the pitcher so described."

From the statements contained in the Commissioner's decision in Stimpson's case, it appears that the principal ground upon which the decision rested was his own observation of the practical utility of the pitcher, opposed to his former decision rejecting the application on theoretical principles. He said: "This application has been before the Office on a previous occasion. It was then rejected, and the rejection affirmed by me. Since that time I have seen one of the articles in use, and, being satisfied of its great utility, have come to the conclusion that the previous action was erroneous. Vessels have before been made for a similar purpose and constructed upon the same principle, and therefore it was held on the previous occasion that making a pitcher was not patentable where urns had before been constructed in a substantially similar manner. I have now some difficulty in making the necessary discrimination, though satisfied that the pitcher should be patented. I think, however, it may be regarded as substantially a new commodity; and, although it preserves water from cooling or becoming warm upon the same principles and in substantially

the same manner as some urns that have been known, still it is essentially a new article, differing sufficiently from the urn to be worthy of a patent. The urn does not suggest the pitcher. It requires no small degree of ingenuity to contrive the latter after seeing the former; and, besides, where an invention is really useful, it requires a smaller exhibition of ingenuity to justify the granting of a patent than where the utility is doubtful."

Upon a careful examination of the specification in the aforegoing case of Stimpson, I have not been able to find in the description of his object and intention any intimation that he meant to interpose a non-conducting agent between the external and internal walls or surfaces by means of confined air, or otherwise. No such consequence was looked to by him. On the contrary, he expressly disclaims the use of the double wall as a means of intercepting heat or as a device intended to be applied to any structure or vessel whatsoever for the purpose of economizing in ice, &c. He confines his claim to the double-wall pitcher simply. And further, to show that such a device was foreign to his intent, he has provided "that if the vessel should be constructed of materials that are not sufficiently strong to prevent collapse by the pressure of the atmosphere, a small vent should be applied to the space *g*." Nor does it appear that any such device or contrivance was thought of, or formed any part of the ground upon which the Commissioner's decision was made to rest. Such, on a comparative view, appear to be the facts and circumstances of the two pitchers. Can they be said, on principles of patent law, to be substantially the same? Now, as to the other aspect of the case—that the structure and combination of which the two inventions are formed are different—that has not been and cannot be denied; but it is said that the differences presented as the appellant's invention are not new substantially, being nothing more than mere equivalents for what was before known. The rule of patent law relied on for the position is said to be found in the case of Bean *v.* Smallwood, 2 Story, 408–410. It will be seen that that was the case where the first two specifications of claim were admitted to be the same as Simmons' patent, and therefore not new and patentable. The third and last was proved to be the same apparatus, long in use, and applied, if not to chairs, at least in other machines or purposes of a similar nature. "If this be so, [says the judge in

laying down the rule,] then the invention is not new, but, at most, is an old invention or apparatus or machinery applied to a new purpose." Such is not this case. The combination here is claimed and admitted to be a new combination applied to an old purpose. If so, the rule is entirely different.

The rules most applicable to this case, I think, are to be found in Curtis, section 95. Referring to Whitmore *v.* Cutter, 1 Gal., 478, the rule is thus stated: "The great question, of course, when an alleged invention purports to be an improvement of an existing machine, is to ascertain whether it is a real and material improvement or only a change of form. In such cases it is necessary to ascertain with as much accuracy as the nature of such inquiries admits the boundaries between what was known and used before and what is new in the *mode of operation*. The inquiry, therefore, must be, not whether the same elements of motion or the same component parts are used, but whether the given effect is produced substantially by the same mode of operation and the same combination of powers in both machines, or whether some new element, combination, or feature has been added to the old machine which produces either the same effect in a cheaper or more expeditious manner, or an entirely new effect, or an effect that is in some material respect superior, though in other respects similar, to that produced by the old machine."

It may be proper also to state further the rule respecting equivalents, which I take to be this: "If the change introduced by the applicant constitutes a mechanical equivalent in reference to the means used by a patentee, and, besides being such an equivalent, it accomplishes some other advantages beyond the effect or purpose accomplished by the patentee, such further advantage may make it a patentable subject as an improvement upon the former invention."

I will refer to one more authority, and close. It gives the rule in relation to the combination of various materials and a new method of application—3 Merevail, 629, referred to in 4 Barn. & Ald., 599. The chancellor says: "There may be a valid patent for a new combination of materials previously in use for the same purpose or for a new method of applying such materials."

In order to a satisfactory conclusion on this point, I shall endeavor to make a due application of the aforegoing settled

principles to the facts and circumstances connected with this part of the case.

The combination in this case must be considered to be new, unless it is substantially like some other which has been discovered, The only remaining one, as such, which has been referred to, now to be noticed, is that of Stimpson's, one view of which has been already taken. Stimpson's claim, as before said, is for a combination having two parts; Hebbard's is for three, as before said, the nature and character of which, as imported on the face of the pitcher and contended for in the argument, is: First. The appellant's is a porcelain pitcher, which does not oxidize like metals when used for acidulated liquids, (lemonade, &c.,) has no galvanic action to "sour milk" if left standing in it, like metal would have, and at the same time can be kept purified, and cleaned easier than metal. Second. That felt packing is one of the best non-conducting substances known of; is light, and therefore does not add to the clumsiness of a large pitcher; is elastic, and therefore has a great tendency to protect the porcelain pitcher from fracture, by absorbing the force of the blow; and is easy of application, as well as cheap. Third. The external metallic shell acts as a shield to protect the porcelain pitcher and the packing, as well as being used for a frame to hold the porcelain-packed pitcher.

The great benefit of having a non-conducting agent as a part of the invention is conceded; and that some are much better than others for that purpose, is equally clear. In the appellant's invention this device, with a view to its most suitable and perfect adaptation, (to use his own language,) has been manipulated into special form for the specific duty required, possessing invariable constancy and certainty. On the contrary, as it respects Stimpson's pitcher, if air got confined between the sides of the two pitchers, it was an incident, and not from any ingenious efforts of Stimpson to effect any such arrangement; and also, if it be true, as alleged, that air is not a good non-conductor, but, on the contrary, may be said to be one of the best conductors of heat known of, (as however thin the stratum of air, if exposed on opposite sides to the least difference of temperature, that will cause a change of the particles of the air and a circulation to take place, and that circulation will transmit the heat with more celerity than if passing through

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.

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