about one gallon to each barrel. The witness was allowed by the court, against the objection of the plaintiffs, to give an ocular demonstration, in the presence of the jury, with spirits, sugar, and hydrometer, for the purpose of showing that the difference in the apparent proof ("A. P.") marked on the packages containing the whisky in controversy and the proof of such whisky as shown by the regauge may have been caused by the sugar which had been put into the spirits by the rectifier, to which action of the court the plaintiffs excepted. The witness also testified that the introduction of sugar into spirits reduces the proof. There was also evidence showing the amount of evaporation allowed in spirits by the regulations of the internal revenue department.

There were various instructions requested by the plaintiffs, which were refused by the court, to which refusal exceptions were duly taken, and on which error is assigned. We will not consider in detail the several rulings of the trial court, and which are presented by the assignment of errors. The court could have properly ordered a verdict for the claimant, and we are satisfied of the correctness of the finding on the charge given, the effect of which was to direct a verdict for the claimant. The complaint in the case is that the 14 packages of whisky did not have or bear the proper marks and brands required by law to be placed on them. The law required that such packages should be inspected and gauged on the premises of the rectifier who has paid the tax, by a United States gauger, who should place thereon an engraved stamp, properly signed, and which shall state the date when affixed, and the number of proof gallons contained therein. Rev. St. § 3320. The proof is that the packages in question were duly marked and stamped by United States gaugers on the premises of the claimant, the rectifier, in North Carolina, and that when regauged, some six months thereafter, there was a divergence both in proof gallons and in wine gallons in said packages. The divergence, we think, is clearly accounted for. But, if it were not satisfactorily accounted for, yet we cannot see how the United States has been in any manner defrauded, or could have been defrauded, unless the spirits which had been inspected and gauged in North Carolina had been taken out of the packages, in whole or in part, and other spirits, on which the tax had not been paid, had been put in them. There is, however, no charge of this sort in this information. In no aspect of the case made by the record could the plaintiffs recover. Any error in the rulings of the trial court adverse to the plaintiffs was therefore error without injury. The judgment is affirmed.

TANNAGE PATENT CO. v. ZAHN.

(Circuit Court, D. New Jersey. March 26, 1895.)

1. PATENTS—SUFFICIENCY OF SPECIFICATION.

The specifications of a patent are addressed primarily to persons "skilled in the art," by which is meant, not those having very great technical knowledge relating to the subject-matter of the invention, but rather

those having ordinary and fair information; and if to these latter the specifications sufficiently describe the invention or process, it is all that is required.

7. SAME—PROCESS PATENT—WEIGHT OF EVIDENCE.
Much greater weight should be attached to the testimony of witnesses who say they have accomplished the results sought by a process patent, by following the methods described in the specifications, than to the testimony of others, who say that they were unable to attain success.

8. SAME—ANTICIPATION—ANALOGOUS USE—PROCESS OF TANNING LEATHER.
The Schultz patents (Nos. 291,784 and 291,785) for processes of tanning leather, which consists substantially, first, in saturating the skins with acidulated bichromate of potash, or chromic acid; and, second, by employing sulphurous acid as a reducing agent to change the chromic acid into chromic oxide, *held* anticipated by the previous use of like processes in the treatment of other substances than leather, and particularly by the Swan patent, covering improvements in the treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances.

This was a bill by the Tannage Patent Company against William Zahn for infringement of patents for processes of tanning leather.

George Blodget and Charles Howson, for complainant.
Rowland Cox, for defendant.

GREEN, District Judge. The bill of complaint charges the defendant, William Zahn, with infringement of letters patent Nos. 291,784 and 291,785, both granted on January 8, 1884, to Augustus Schultz, for new and improved processes for "tawing hides and skins," and which were duly assigned by the patentee to the complainant. There seems to be but little difference in the two processes, as claimed in the respective patents. In patent No. 291,784 it is said that:

"This invention relates to a new process for tawing hides or skins, said process consisting in subjecting said hides or skins to the action of compounds of metallic salts, such as bichromate of potash, and then treating the same with hyposulphite of soda, by which term is understood that salt which is more recently sometimes called 'thiosulphate of soda' ($Na_2 S_2 O_3$)."

In the other patent (No. 291,785), the inventor says:

"This invention relates to a new process for treating hides or skins. Said process consisting in subjecting said hides or skins to the action of a bath prepared from a metallic salt, such as bichromate of potash, and of then treating the same with a bath containing sulphurous acid."

It is quite apparent that, if there be any difference in these processes, it is more in the descriptive words used than in the actual means employed. In both the first step is identical, and in the second step the action of sulphurous acid upon the skin or hide after it has been taken from the first bath is provided for. In the first process this necessary sulphurous acid is obtained by subjecting hyposulphate of soda to a chemical agent which, by decomposition, will produce it. In the second process the sulphurous acid is directly supplied to the last bath. Such being the processes of the two patents, broadly considered, it is to be expected that the claims should show an equal similarity in their purport. In the one patent the claim (and there is but one claim in each patent) is stated in almost the exact words of the specifications, as follows:

"The within-described process for tawing hides and skins, said process consisting in subjecting the hides or skins to the action of compounds of metallic salts, such as a solution of bichromate of potash, and then treating the same with a compound containing hyposulphurous acid (or, as it is otherwise called 'thiosulphuric acid'), such as a solution of hyposulphite of soda or of potash in the presence of hydrochloric acid."

In the later patent the claim is:

"The within-described process for tawing hides and skins, said process consisting in subjecting the hides or skins to the action of a bath prepared from a metallic salt, such as bichromate of potash, and then to the action a bath capable of evolving sulphurous acid, such as a solution of sulphite of soda, in the presence of another acid, such as hydrochloric acid, substantially as described."

These patents relate to what is now known as "chrome tanning." Chrome tanning, as contradistinguished from other tanning, characterizes itself by making use of mineral salts in the tanning process, rather than vegetable matter. As is well known, the older method of obtaining leather was to immerse the hide or skin in some liquid containing tannic acid, which was commonly obtained from oak or hemlock bark. This method was reliable, not exceedingly expensive, save with regard to the length of time the operation required, and its product was the transformation of the hide or skin into a high grade of leather, impervious to and unalterable by the action of water, and with great ability to resist wear and tear. But months were consumed in the proper and sufficient action of the tannic acid on the hide, already prepared for exposure to its transforming power. And because of this expense of time for many years the attention of practical tanners had been closely engaged with attempts to remedy so great an inconvenience. The chrome method of tanning successfully solved the problem, and by it the time for the action of the tanning agent was immediately reduced from the months of the current method to a few hours, which now suffice when the mineral salts are used. This undoubtedly was a great benefit and gain to the manufacturers of leather, and as such it is entitled, as far as possible, to the protection of any court, when it seeks such protection. This chrome method of tanning, Mr. Schultz says, constitutes his invention, and it is this alleged invention which the defendant is charged with infringing. The usual defenses are, by the answer of the defendant, set up in reply to these charges; but apparently he mainly relies upon two, which we will briefly consider. They are (1) the insufficiency and misleading character of the specifications of the letters patent in question; and (2) want of novelty in the alleged process.

The purpose of the specification, as contradistinguished from a claim, in letters patent, is to describe clearly the invention sought to be protected by them, and the manner of making, using, and constructing the same. The letters patent constitute a contract between the patentee and the public. On the one hand is granted an exclusive use of the invention for a specified term. On the other, by way of consideration, a full disclosure of the invention, in all its parts, must be made. It is through the instrumentality of the specifications that this disclosure is made, and the invention

thereby fully placed within the knowledge of the public. Necessarily, upon their thoroughness in that respect, and upon their accuracy in statement, depends the validity of the contract of the letters patent. If there be material failure in either respect, there necessarily results such failure of consideration as must vitiate the contract. It follows, then, that a specification failing in any material respect to make the invention fully known and accessible to the public must be held fatally defective, and the patent based upon it, ipso facto, becomes void. Wayne v. Holmes, 2 Fish. Pat. Cas. 20, Fed. Cas. No. 17,303. But it should be borne in mind, in judging of the sufficiency of the specifications of letters patent, that while the language and the methods of statement used by the inventor must be such as will fully place the invention in the intelligible possession of the public generally, it is not necessary that it should be so minutely and exactly described as to be readily understood by every person going to make up the public. The specifications of letters patent are addressed primarily to those skilled in the art to which the invention relates, and not to those who are wholly ignorant of the subject-matter. In Plimpton v. Malcolmson, 3 Ch. Div. 531, Sir George Jessel, the master of the rolls, thus states the principle:

"In the first place, it is plain that the specification of a patent is not addressed to people who are ignorant of the subject-matter. It is addressed to people who know something about it. If it is mechanical invention, as this is, you have, first of all, the scientific mechanicians of the first class,—eminent engineers. Then you have scientific mechanicians of the second class,—managers of great manufactories; great employers of labor; persons who have studied mechanics, not to the same extent as those of the first class, the scientific engineers, but still to a great extent, for the purpose of conducting manufactories of complicated and unusual machines. * * * And then the third class, consisting of the ordinary workman, using that amount of skill and intelligence which is fairly to be expected from him,—not a careless man, but a careful man, though not possessing that great scientific knowledge or power of invention which would enable him by himself, unaided, to supplement a defective description or correct an erroneous description. Now, as I understand, to be a good specification it must be intelligible to the third class I have mentioned, and that is the result of the law. It will be a bad specification if the first two classes only understand it, and if the third class do not."

And in the case of Morgan v. Seaward, 1 Webst. Pat. Cas. 174, Mr. Baron Aderson used this language:

"The specification ought to be framed so as not to call on a person to have recourse to more than those ordinary means of knowledge (not invention) which a workman of competent skill in his art may be presumed to have. You may call upon him to exercise all the actual existing knowledge common to the trade, but you cannot call upon him to exercise anything more. You have no right to call upon him to tax his ingenuity or invention."

From which it seems to follow that persons skilled in the art to which the specification is addressed are in fact those of ordinary and fair information, but not to those having very great technical knowledge relating to the subject-matter of the invention. And if, to them, the specification sufficiently and well describes the invention or process, it is quite sufficient. Now, the courts have always been generous towards inventors, in their application of these principles of the law, and their consequent judgment of the

validity of a specification. Although the specification may be in some degree incorrect, or vague or incomplete, if from it, taken in connection with accompanying drawings and models and plans and formula, and especially the rest of the letters patent, one skilled in the art, as above defined, can, by exercise of purely non-inventive powers, succeed in constructing the machine, or in following the process, or in combining the ingredients of matter mentioned into one whole, it is sufficient. On the other hand, if experiment and inventive skill on the part of a skilled operator or user is necessary, in addition to the instructive statements of the specification, to render the invention available and the use successful, then the specification is fatally defective, and the patent based thereon is void. Lockwood v. Faber, 27 Fed. 63; McNamara v. Hulse, 2 Webst. Pat. Cas. 128; Tyler v. Boston, 7 Wall. 327.

Applying, then, these principles as to the sufficiency of the specifications to these patents, it becomes apparent, upon reflection, that the severe criticism which has been made upon them is not wholly deserved. Possibly, they could have been written in language more exact, perhaps more perspicuous, but upon close examination they will be found to be sufficient to convey the necessary knowledge of the invention to those who are skilled in the art. Before testing the specifications, it is proper to say that the manufacture of leather seems to comprise three distinct stages. First, the preparation of the skins or hides up to a point where they are ready for the tanning process proper. This stage includes the loosening of the hair by some depilatory agent, removing the hair by mechanical means, cleansing the skins, and putting them generally in condition for treatment by tanning materials. The second stage includes the tanning process proper, by which the skins are changed from their primary state into leather. The third stage contemplates the finishing of the leather as it leaves the tanning process, by the use of coloring material, grease, oil, or other matters. It is apparent that the invention in this case is addressed solely to the second stage of the general manufacture, to wit, the actual tanning process.

In the specification of patent 291,784 (and, as has been already stated, the specifications of the two patents are practically alike), Mr. Schultz describes his process in this way:

"In carrying out my process I unhair the rawhides, and prepare them in the same manner in which they are made ready for tanning. If the hides have not been pickled, I subject them to the action of a solution of bichromate of potash in the presence of an acid, such as bichloric acid, or, if the hides have been pickled, they may be treated in a solution of bichromate of potash in water, without the addition of an acid. In this solution the hides are left for a shorter or longer time, according to their thickness and to the strength of the solution employed. A skiver, or the face of a sheepskin, can be done in a strong solution, as above described, in about fifteen minutes, while a full-skin roan would require, in the same solution, about one hour. I call the solution weak if it contains five per cent. or less, of the weight of skins, of bichromate of potash, and I call the solution strong if it contains more than five per cent. of bichromate of potash. It is not material, however, how strong the solution is. The skins are completed if small pieces cut from the thickest parts of such skins show that the solution has entirely penetrated. The skins are then ready to be taken out, and, after the

adhering liquor has run off, the skins are introduced into the second solution, which consists of hyposulphite of soda dissolved in water, and adding an acid, such as hydrochloric acid. The solution may be strong or weak of hyposulphite, and the quantity of acid used at first may be less than requisite to split up the entire quantity of hyposulphite; and more acid may be added if the skins show that more is required, which is indicated by the color of the skins. When they are done, they show a whitish, bluish, or greenish color, according to the time they are kept in the hyposulphite solution. A skiver which first has been exposed to the action of the bichromate for fifteen minutes will be ready by remaining in the hyposulphite solution about twenty minutes. For thicker skins a proportionate longer time is required. * * * After the leather is treated in the manner above indicated, it may be colored, soaped, and greased in the usual way."

In other words, the inventor, in this specification, designates with sufficient exactness for verification the chemical agents which he uses in his process, the quantities to be used to produce good results, the manner of their application to the hides or the skins, and the time necessary to elapse in the carrying out of the complete manufacture. This, perhaps, is more clearly shown if the specification be paraphrased somewhat. Shortly stated, the process is simply this: The subjection of hides which are ready for the tanning process to a bath of bichromate of potash, in which there is an acid, such as hydrochloric acid, if the hides have not previously been pickled. Then, after an immersion therein for a length of time sufficient to thoroughly saturate them, subjecting them to a second bath, in which there is sufficient sulphurous acid to decompose the chromic acid of the first bath. It appears that it is not material whether the first bath is weak or strong. That should depend somewhat upon the character of the skin or hide submitted to it. And the time in which the hides or skins are to be immersed depends upon their thickness, and upon the strength of the bath. A weak bath is one which contains 5 per cent., or less, of the weight of the skin in bichromate of potash. A strong bath is one that contains more than such 5 per cent. Fifteen minutes is the length of time sufficient for the action of the bath upon a skiver. In case of a thicker skin, a longer time would be required. And so, similarly, the skiver which has been exposed to the action of bichromate for 15 minutes will be completely done in the hyposulphite solution by remaining there about 20 minutes. Thicker skins require longer time. The real test of the impregnation of the skin, in the first bath, and the conclusion of the tanning process, in the second bath, however, is made known by an examination of the skin itself. Its general surface color, and its appearance when cut, show whether the operation has been finally concluded. Such directions seem sufficiently explicit to be followed, and that they are sufficiently clear is abundantly proved by the evidence in this cause. It is true, indeed, certain of the defendant's witnesses testified that they failed to make leather, in following the directions of the specification. But this negative testimony is overcome by the success of witnesses for the complainant, who, being practical tanners, not only succeeded, but succeeded without any difficulty, in obtaining first-class chrome leather by closely following the specification. The testimony of

Mr. Landell, Mr. Stanley, Mr. Britton, Mr. Burk, and others establishes this fact beyond question. Such affirmative testimony is far more valuable than the testimony of those who failed to make a success of the process of Schultz. As was said in the case of Loom Co. v. Higgins, 105 U. S. 580, "When the question is whether a thing can be done or not, it is always easy to find persons ready to show how not to do it." If one succeeds by following the directions of the specification, that establishes the sufficiency of the specification, no matter how many others may fail. The law does not require inventors, in order to obtain a patent, to bring their invention to the highest degree of perfection, and to describe it in technically exact and precise terms. As stated before, it is enough if, for instance, a process is described in the specification with sufficient clearness and precision to enable those skilled in the matter to understand what the process is, and if they point out some practical way of putting it into operation. This has been done by Schultz in this case, and therefore it seems proper to hold that the specifications are sufficient, in their descriptive language, to be sustained.

The other defense is one which gives more trouble. Was there any novelty in this alleged discovery? What was the exact discovery of Schultz? Technically, it was what is called a "process." And a process has been defined as "a mode of treating certain material to produce a given result. It is an act or a series of acts performed upon the subject-matter to be transformed and reduced to a different state or thing." Cochrane v. Deener, 94 U. S. 780. And in Tilghman v. Proctor, 102 U. S. 707, the court tersely declares, a "process" to be an act or mode of action, and, as contradistinguished from a "machine," which is a "thing" visible to the eye, and an object of perpetual observation, is a "conception of the mind." Now, it is plain from what has already been said that the process conceived by Schultz was (1) the saturation of skins and hides with acidulated bichromate of potash, or chromic acid; and (2) employing sulphurous acid as a reducing agent to change the chromic acid into chromic oxide. He limited his process to skins and hides, to change them to leather. But saturation with acid, and the converting of that saturating acid into oxide by chemical reduction, must, by force of the eternal and unchangeable laws of nature, be always the same, no matter what may be the character of the substance or material which may be used in carrying out the operation. In other words, given saturation by bichromate of potash, and subsequent reduction of the chromic acid by sulphurous acid, the result must be constant and identical. To be sure, the substance or material affected may be wholly diverse in character. It may be woolen yarn, or it may be goat skin. Nevertheless, the saturation with chromic acid and the after reduction by chemical agents must be the identical process in each case. If this be true, Schultz is very far removed from being a pioneer discoverer as claimed, or, indeed, from being a discoverer at all, except so far as he himself may be personally concerned. The evidence in this case shows various instances of processes well known before Schultz's di[illegible]

covery, which concerned themselves solely with saturation by bichromate of potash and reduction by sulphurous acid. Such saturations and such reductions were described as early as 1859, again in 1860, and again in 1866, in Wagner's Jahresberichte, a well-known German publication. The following are extracts from these articles:

From Wagner's Jahresberichte, 1859, p. 536:

"If chrome alum is used instead of bichromate of potash, both the aforesaid difficulties disappear." "We have in sulphurous acid a very cheap reducing agent of chromic acid, and obtain in the sulphuric acid which is formed during the process the acid necessary for the formation of chrome alum."

From Wagner's Jahresberichte, 1860, p. 513:

"C. Koechlin discusses the utility of oxide of chromium in dyeing and printing on fabrics, based on the solubility of oxide of chromium in alkaline disulphates. Sulphite of soda, when mixed with an acid which liberates the sulphurous acid, decomposed by means of bichromate of potash, and then made alkaline with ammonia, yields oxide of chromium."

From Wagner's Jahresberichte, 1866, p. 592:

"The process depends on the fact that when sulphurous acid is led through a solution of chromate the chromic acid is reduced to oxide of chromium; there being formed at the same time sulphuric acid, which combines both with the oxide of chromium that was produced and with the base originally united with the chromic acid. Besides the sulphates, a certain quantity of sulphur compounds is formed at the same time. Chaudet proceeds as follows: Sulphur is placed and lighted in a cast-iron retort, which is connected with bellows on one side and with a vessel containing the solution of the chromate on the other. On operating the bellows the sulphurous acid produced by the combustion of the sulphur is driven into the solution of the chromate."

Page 593:

"In order to simplify the use of oxide of chromium as a mordant, the author endeavored, by using bichromate of potash as a mordant, to convert the chromic acid into oxide of chromium on certain tissues like wool; and he succeeds in doing so by bringing the tissue mordanted with chromate of potash in contact with agents which reduce chromic acid to oxide of chromium, such as sulphurous acid, alkaline sulphides, organic acids, alcohol, sugar, etc., afterwards washing and dyeing."

It is true, as appears from these extracts, that the material used as the subject of the saturation and subsequent reduction was not "hides or skins." The object sought to be gained by these especial processes was, as appears from the published articles, improvement in "dyeing and printing on fabrics," and in "treatment of wools." But the chemical result was the important end sought, and the use of chrome alum and of bichromate of potash as a saturating means, and the after reduction by sulphurous acid, achieved that; and, whether it was wool or goat skins, the whole process and the final result were necessarily chemically the same. If this be so, it is difficult to ignore these publications as an anticipation of the process involved in the case at bar. And, if an anticipation, novelty vanishes. But the defendant brings stronger evidence of want of novelty in Schultz's alleged discovery, in the letters patent granted December 15, 1856, to Joseph Wilson Swan, for "improvements in the treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances." In the specification of this patent appears the following:

"My invention consists in the use of salts of the sesquioxide of chromium. * * * My invention is applicable to various uses; * * * to the fixing of pigments and dyes in calico printing; * * * to the tanning of skins and hides. * * * In tanning, I immerse the skins or hides in a solution of chromic salt, or in a solution of chromate or bichromate of potash, or any equivalent salt; the said chromate or bichromate being decomposed in the skin or hide by the action of a suitable acid, so as to produce the required compound of chromic oxide. In tanning, I immerse the skins or hides in a solution containing about one per cent. of chrome alum, or in a solution of chromate or bichromate of potash, or other suitable chromate or bichromate, and I decompose the said chromate or bichromate in the skin or hide by means of oxalic or other suitable acid, so as to produce by the decomposition and reduction of the said chromate or bichromate the required compound of chromic oxide."

As was said by Dr. Morton, one of the expert witnesses for the defendant, this is quite as good a description of Schultz's process as the one which he gave to the public in his own specification. In fact, it would be exceedingly difficult, if not impossible, to differentiate the Swan process from the Schultz process. There can be no question that the Swan patent describes a process by which would be produced chrome tanned leather, and that the process consisted—First, in saturating the skin or hide with chrome acid, or acidulated bichromate of potash; and, secondly, reducing the chromic acid or bichromate to chromic oxide by suitable acid. This is identical with the process of the complainants, and must be held an anticipation. The truth is, it is very difficult to discover just what Schultz can possibly claim as original in his process. It will be noticed that in the instances of anticipation given the dyeing of wools and the printing on fabrics are prominently, and perhaps preferably, mentioned as the subjects of the processes detailed. To be as liberal toward Schultz as possible, all that can be fairly predicated of his alleged discovery is that an old process could be availed of in a new relation. The saturation and the reduction which had been applied to wool and other substances could be applied to skins and hides. What he did, therefore, was to apply an old process, and use chemicals perfectly well known, in a new relation, without the slightest change in the mode of application. This ingenuity, if it can be so characterized, can hardly afford a substantial basis for a patent. In Pennsylvania R. Co. v. Locomotive Engine Safety-Truck Co., 110 U. S. 490, 4 Sup. Ct. 220, the court says:

"It is settled by many decisions of this court, which it is unnecessary to quote from or refer to in detail, that the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated."

Perhaps it should be stated, in this connection, that the reduction of bichromate of potash and of chromic acid by sulphurous acid has been for many years perfectly well known to chemists, and was clearly within the "circle of what belonged to the public" at the date of Schultz's patent. It is unnecessary to examine the other patents for similar processes referred to by the defendant, and which, if they do not amount to positive anticipations, are at least so instructive that, with them as guides, one skilled in the art would readily arrive at the same result at which Schultz did. The

Cavallius process, the Ordway process, the Heinzerling process, and perhaps others, all have, in a very high degree, a positive likeness to, if not practical equivalency with, the Schultz process, and clearly disclose a state of art which leaves scarcely anything to be accomplished in the future, so far as chrome tanning is concerned. Certainly, considered in connection with the Swan patent and the publication on this subject extant years before Schultz made his experiments, they strip his alleged discovery of all legitimate claim to that novelty and invention upon which alone rests safely the validity of letters patent. The bill of complaint must, for the reasons stated, be dismissed.

EBERHARD MANUF'G CO. v. ELBEL et al.

(Circuit Court, N. D. Ohio, E. D. August 8, 1893.)

No. 5,009.

PATENTS—ANTICIPATION—INFRINGEMENT—HARNESS TRIMMINGS.

The Zeller patent, No. 207,791, for improvements in harness trimmings, shows patentable invention, and was not anticipated either by the Zeller patent of 1874, or by the Hinman patent of February 25, 1868.

This was a suit by the Eberhard Manufacturing Company against Elbel & Co. for infringement of the Zeller patent, No. 207,791. The patent relates to drop hooks and terrets for harness. The hook is used for holding the checkrein which extends from the bridle bit, and is secured to the apex of the harness saddle. The terrets are rings through which the driving reins pass, and are fixed to the sides of the harness saddle. The patented hook comprised three parts,—a base plate having rivet holes enabling it to be attached to the harness saddle, and having a concave bearing for the hook; an annularly grooved hook; and a covering cap piece fitting over the groove of the hook, forming, with the concavity of the base plate, a contracted cylindrical cavity, which prevents the shank from moving lengthwise, but leaves it free to turn laterally, and drop into a horizontal position when not in use.

E. A. Angell and Thomas W. Bakewell, for complainant.
M. D. Leggett and Charles R. Miller, for respondents.

RICKS, District Judge. The bill is filed for infringement of letters patent No. 207,791, granted on September 3, 1878, to Melancthon E. Zeller, for an improvement in harness trimmings. The complainant has given to the public a very simple device, which combines several elements that are all calculated to make it acceptable and useful. Though it presents no single element evincing great invention, it combines several new features, which, taken together, make it a successful device, which has rapidly won its place among articles of useful manufacture. It is easily and cheaply made; so designed and constructed as to be easily put together; each part performs the function claimed for it; and when put into