

a known device, and the doctrine of equivalents cannot be invoked to suppress other improvements in the same line which are not "mere colorable invasions of the first." The claims must be restricted to the specific form of device for which the patent was granted. *Railroad Co. v. Mellon*, 104 U. S. 112; *White v. Dunbar*, 119 U. S. 47, 7 Sup. Ct. 72; *Miller v. Manufacturing Co.*, 151 U. S. 186, 14 Sup. Ct. 310.

2. With inquiry open in reference to the prior art, the affidavits of Messrs. Haskins and Jones disclose numerous prior devices in telephones and telephone switches, and that these patents can only have force as improvements in the means. Indeed, the reports are full of adjudications of which notice can be taken to that effect. The affidavits on behalf of defendants alleging breach of contract of employment and misrepresentations cannot be considered upon this motion. The only question is of infringement or identity of devices, and the issue is not upon the alleged subsequent patent granted to the defendants (of which copy is presented in the argument of complainant), but upon the devices which were produced and conceded as an exhibit of the defendants' alleged infringement. The rule is settled that the fact of infringement must be conclusively shown for an injunction *pendente lite*. Therefore, upon this motion, it is not necessary to pass upon the question of constructive identity, but it is sufficient that a doubt is fairly raised by the affidavits of the learned experts in behalf of defendants, who point out the ground of distinction in the light of prior art, and assert that there is no infringement. Cogent reasons are presented by their affidavits against infringement of the combination in the claim of letters patent No. 504,636, in the absence of a pole piece in defendants' apparatus. And, while the showing may not be clearly made out that the switch device is not a mere evasion of No. 516,777, I cannot say that a conclusion is undoubted in view of the affidavits and the reference to the Phelps switch and other prior devices. It follows that an injunction must be denied, leaving all questions of identity to final hearing; and it is so ordered. The demurrers interposed by the defendants are overruled, as the complainant was allowed to amend upon the technical and only ground which was well taken.

---

WALL et al. v. LECK.

(Circuit Court of Appeals, Ninth Circuit. February 4, 1895.)

No. 184.

1. PATENTS—NOVELTY AND INVENTION—PROCESS OF FUMIGATING TREES.  
The discovery that the old process of fumigating plants and trees by hydrocyanic acid gas, after covering them with an oiled tent, is more effective in the absence of the actinic rays of the sun, gives no right to a patent for the use of that process at night or in cloudy or foggy weather, when such rays are excluded by the processes of nature. 61 Fed. 291, followed.

2. **SAME.**

The Wall, Jones and Bishop patent, No. 445,342, for a process of fumigating trees, *held* void on its face for want of patentable invention. 61 Fed. 291, followed.

Appeal from the Circuit Court of the United States for the Southern District of California.

This was a bill by W. B. Wall and others against Henry Leck for infringement of letters patent No. 445,342, issued January 27, 1891, to W. B. Wall, M. S. Jones, and A. D. Bishop for a process for fumigating trees and plants. The circuit court sustained a demurrer to the bill on the ground that the patent was void on its face for want of patentable novelty and invention. 61 Fed. 291. Complainants appealed.

W. F. Henning and H. T. Hazard, for appellants.  
Ray Billingsley, for appellee.

Before McKENNA and GILBERT, Circuit Judges, and HAWLEY, District Judge.

HAWLEY, District Judge. This suit was brought by appellants against the appellee for an alleged infringement of letters patent No. 445,342, issued January 27, 1891, to appellants for a process of fumigating trees and plants, for an accounting of profits alleged to have been realized by the appellee, and for an injunction, etc. A demurrer was interposed to the bill of complaint upon the ground "that it appeareth by the complainants' own showing by the said bill that they are not entitled in a court of equity to the relief prayed for by the bill against this defendant, or any relief touching the matters contained in the said bill, or any of such matters." This demurrer was sustained, "the court being of opinion that the patent is void for want of novelty and invention, and that, in view of its recitals, it is so plainly so that it cannot be aided by evidence, it should be so declared on demurrer, without subjecting the parties to the costs of producing proof." Did the court err in sustaining the demurrer? Does the bill state facts sufficient to authorize a court of equity to grant the relief prayed for? The bill alleges, among other things, that complainants—

"Are the original and first discoverers and inventors of a new and useful process for the fumigation of trees and other plants, which consists in fumigating with hydrocyanic acid gas, in the absence, substantially, of the actinic rays of light"; that they obtained a patent from the United States patent office for their discovery, "which patented process had not been known, used, or published prior to the said discovery and application of your orators; \* \* \* that the said fumigating process of your orators was designed to destroy, and when performed in the manner set forth in their said application and in their said letters patent does destroy, the scale insects of certain destructive species or varieties commonly infesting or living on citrus fruit trees and other plants, and effectively rids said trees and plants (so fumigated) of such insects, so as to greatly benefit said trees and plants, and thereby produce great benefits and profits to the owner thereof, and when so used does not injure the plant or tree."

These averments in the abstract—independent of the letters patent—might be said to state sufficient facts to show invention; and

if it be true, as alleged, that complainants discovered and invented a new and useful process for the fumigation of trees, etc., then they might, under well-known principles of the patent law, be entitled to maintain the suit. But it will be noticed that the averments in the bill fail to state specifically what the "process" which they discovered is. The letters patent are not annexed to the bill, but an exemplified copy thereof is offered to be and was produced for the inspection of the court. We must therefore look to the patent, its specifications and claim, in order to ascertain the character of the "process" which complainants allege they discovered and invented. What is it? The application for the patent declares that "it consists in fumigating the plant with hydrocyanic acid gas, in the absence of light." The specifications declare that:

"Hydrocyanic acid gas has heretofore been employed in fumigating trees, but it has not been considered practicable, for the reason that, if the gas were of sufficient strength to destroy the insects on the plants, it also injured the foliage and fruit. We have discovered that when the light is excluded the action of the gas is more effective in destroying insect life, and at the same time becomes harmless to plant life, unless used excessively. Our process differs from the ordinary process of fumigating with hydrocyanic acid gas only in that we exclude the light. This may be done by means of the oiled tent or covering ordinarily used for such fumigation, provided the fumigation is done at night. If the work is done in the daytime, the covering must be so colored as to exclude the actinic rays of light, but we do not believe it possible to produce satisfactory results with any colored tent in bright daylight."

After giving this specific statement of their discovery, they declare that what they claim as new and desire to secure by their letters patent is "the process set forth of fumigating plants with hydrocyanic acid gas in the absence, substantially, of the actinic rays of light." The argument of the learned counsel for appellants exhibited a degree of ingenuity that is commendable, and is deserving of respectful consideration. It is earnestly contended that the circuit court, in sustaining the demurrer, failed to distinguish between a process and the means of carrying out the process; between a mode of application or condition and a means of producing that condition; between the importance of the absence of the light and the means of producing that absence,—and numerous authorities are cited which it is claimed uphold the novelty of the invention. While asserting that the claim in the patent is a sufficient guaranty that it was not night nor any force of nature upon which appellants obtained the patent, and contending that it was for a discovery that by employing well-known agents under certain conditions success would result where failure and disaster had previously been the result, it is frankly admitted that the specifications in the patent disclose the fact that appellants made the discovery that hydrocyanic acid gas may be used successfully in the absence of the actinic rays of light. This was the only discovery which is claimed, and the argument is, to quote from appellants' brief:

"The recommendation or direction to apply this gas at night for the purpose of accomplishing the desired result is but the pointing out of a way or mode of avoiding the effect of an element or force which it had now been discovered had theretofore rendered fumigation with this gas impracticable."

But in this connection we are brought back to the fact that appellants in their letters patent only pointed out the way by the use of a natural condition of nature's laws. They did not invent any new process, chemical or otherwise, whereby the force of nature was to be controlled. They invented no machine, apparatus, device, or process to exclude the actinic or other rays of light. It is true that a mode was pointed out, but not approved, to so color the tent or covering as to exclude the actinic rays of light; but they neither invented nor discovered any process, texture, or coloring that would sufficiently accomplish that purpose. The discovery of such a coloring is still an open field for the genius of future inventors. Their discovery, which is conceded to be valuable and of great benefit, was that the old process of fumigating trees by means of an oiled tent and hydrocyanic acid gas, both of which were old and free to the public, could be made successful "provided the fumigation is done at night." Such a discovery, however new and valuable it may be, is not within the pale of patentable inventions. It does not come within any of the principles of the patent law, or any of the provisions of the statute relating to patents. A mere naked principle, a law of nature, or property of matter cannot be patented. So long as the principle is a mere item of knowledge, and sometimes from its nature it must always remain such, no patent can be held valid, however brilliant and useful the discovery may be. *Merw. Pat. Inv.* 4, 73, 529; 1 *Rob. Pat.* § 140; *Leroy v. Tatham*, 14 *How.* 156, 175. As was said by Shipman, J., in *Morton v. Infirmery*, 2 *Fish. Pat. Cas.* 320, *Fed. Cas. No.* 9,865:

"In its naked, ordinary sense, a discovery is not patentable. A discovery of a new principle, force, or law operating, or which can be made to operate, on matter, will not entitle the discoverer to a patent. It is only where the explorer has gone beyond the mere domain of discovery, and has laid hold of the new principle, force, or law, and connected it with some particular medium or mechanical contrivance by which or through which it acts on the material world, that he can secure the exclusive control of it under the patent laws. He then controls his discovery through the means by which he has brought it into practical action, or their equivalent action. Sever the force or principle discovered from the means or mechanism through which he has brought it into the domain of invention, and it immediately falls out of that domain and eludes his grasp. It is then a naked discovery, and not an invention."

An artificial force is a natural force, so transformed in character or energies by human power as to possess new capabilities of action. This transformation of a natural force into a force practically new involves a true inventive act. 1 *Rob. Pat.* §§ 92, 96, 99, 103.

Within these general principles many cases may be found where patents have been sustained for a process, art, device, or machine where all the elements were old, provided the mode of application is new. But in all of the numerous cases cited by appellants to sustain this position it will be found either that there was a new combination of the old elements, or that something was added thereto or taken therefrom, or a new mode was invented whereby the principle that was discovered could be applied. The case of *Neilson v. Harford*, 8 *Mees. & W.* 806, 1 *Webst. Pat. Cas.* 295, furnishes an

**apt illustration of the class of cases where a principle with a new means of applying it constitutes the basis for a patent.** Neilson in 1828 discovered that a hot blast of air thrown into a furnace was more effective than the cold blast which had been previously used. It had previously been supposed that the colder the blast the hotter the fire, because it had been observed or discovered that the furnace fires burned better in winter than in summer. The supposition that the cold blast was better than the hot blast was not correct, the truth being that the furnace fires burned better in winter because the air was drier, not because it was colder. Neilson discovered the physical law—the real truth—that a hot blast is more effective than a cold blast in a furnace, and he invented and described an apparatus for making use of this discovery by heating the air blast before it is directed into the furnace, and thereby brought his application within the provisions of the statute. Now, if Neilson had merely announced the principle that a hot blast is better than a cold blast for a furnace, it is evident that he would not have been entitled to a patent. But he described a means of applying the principle, by interposing a chamber or receptacle in which the blast was heated by a separate fire before it was thrown into the furnace. If appellants had followed up their discovery by inventing some new process, device, or apparatus that would exclude the light, they would have brought themselves within the principle announced in the Neilson Case. But they did nothing of the kind. They simply discovered a truth,—that the fumigation of the trees and plants could be made more effective and beneficial by using it in the old way, only at night, or in cloudy days or foggy weather; at any time when the actinic rays of light were absent by the natural condition of nature. To have entitled them to a patent, they should have followed up their valuable discovery by inventing some new method by the application of which the deleterious effect of the actinic rays of light could have been avoided.

A similar distinction between the Neilson Case and the present will be found in all the cases. Thus in *Lawther v. Hamilton*, 124 U. S. 1, 8 Sup. Ct. 342, a patent for a new and improved process for treating oleaginous seeds was upheld although all the instrumentalities were old. The only thing that was new was the mode of applying the old instrumentalities. The process of extracting oil from flaxseed was formerly accomplished by means of rollers and muller stones. Lawther discovered, by actual experiments, that in crushing the seed the tearing, pulverizing action of the muller stones was injurious; that more advantageous results were obtained by dispensing with the use of the muller stones. Although the machinery and apparatus had all been used before, yet Lawther discovered an improvement in the process by altogether omitting one of the steps of the former process, and thereby brought himself within the rule which we have heretofore announced. *McClurg v. Kingsland*, 1 How. 202, as explained in *Burr v. Duryee*, 1 Wall. 568, furnishes another illustration of the rule. A workman in a foundry observed, in pumping water into a bucket, that the water, entering at a tangent to the circle of the bucket, acquired a circular

**motion, diminishing** when it approached the center, where bits of straw and other lighter materials would be concentrated. In casting iron rolls, the metal required to have this rotary motion for the same purpose. This effect had previously been produced by stirring the liquid metal. The thought all at once struck the mind of this observer that the application of this principle or law of nature might be beneficially made to the casting of iron rolls by merely introducing the metal at the bottom of the mold at a tangent. This was held to embrace an invention of a new improvement in the art of casting iron, by giving an angular direction to the tube which conducts the metal to the mold. In these and other kindred cases it will be noticed that the particular processes used to extract, modify, control, or concentrate the natural agencies constituted the invention. The invention was not in discovering them, but in applying them to useful objects. Is it not evident, without further reference to the authorities cited by appellants, that such cases do not support appellants' contention? Appellants, having ascertained that the fumigation of trees by the old process when the actinic rays of light were present, although destructive to the scale, was nevertheless injurious to the trees, in the field of their investigations and experiments made the discovery that if it was used when the rays of light were absent it would destroy the scale or other insects without having any deleterious effect upon the trees. The mode of application of this process, to make it beneficial, useful, and valuable, as described by them, was by utilizing a condition or force of nature by using the process at night, when the rays of light were absent. They did not invent the darkness of night, or the cloudy, foggy weather, when the process could be safely used, nor any method of excluding the light except by the natural changes in the condition of the weather, or of the hours of night as distinguished from the hours of day. In the field of medical science and invention it may be, if it has not already been, discovered that the air we breathe at certain hours of the day is more beneficial and healthful than the air we breathe at certain hours of the night; but would the discovery and absolute proof of this fact entitle the original discoverer to a patent for the exclusive use of the air at the beneficial hours of day, and invest him with the power and authority, under the shield of the patent law, to enjoin each and every other individual from utilizing the air at that particular time of day unless he is paid a royalty, or grants a license for such use? Some things are so self-evident as not to require any proof of their existence. No natural function of the day or of the night, of the sun or of the moon, is patentable. These natural conditions are as free to all mankind as is the air we breathe. The broad canopy of heaven can be used in the daytime, or the night-time, and at all times, in sunshine or in darkness, by everybody, in the presence or the absence of any rays of light, or any condition of the atmosphere. A principle, considered as a natural physical force, is not the product of inventive skill. It is the common property of all mankind. It exists in nature independently of human effort, and can neither be diminished nor increased by human power. Man can discover and

employ it, but his employment of it in the modes or through the instrumentalities by which it is applied in nature is a mere imitation of what every man is able to perceive and reproduce as well as he. All endeavors to confine it to himself are at once futile and unjust. It exists for all men, as well after his discovery as before. The laws necessarily recognize and protect this right, and do not permit any man to exclusively use the conditions which are the gifts of nature, simply because he was the first one to discover its value. Not until some new instrument or method is contrived for its direction towards ends which it cannot naturally accomplish does his creative genius manifest itself. 1 Rob. Pat. § 136 et seq.; *Detmold v. Reeves*, 1 Fish. Pat. Cas. 131, Fed. Cas. No. 3,831; *Morton v. Infirmary*, 2 Fish. Pat. Cas. 320, Fed. Cas. No. 9,865; *Morton's Anaesthetic Patent*, 8 Op. Attys. Gen. 269. The court did not err in sustaining the demurrer. The judgment of the circuit court is affirmed, with costs.

---

AMERICAN DUNLOP TIRE CO. v. ERIE RUBBER CO.

(Circuit Court, W. D. Pennsylvania. January 28, 1895.)

1. PATENTS—LIMITATION OF CLAIMS—STATEMENT OF BEST METHOD.

A statement in the specifications that in the best methods of applying their invention the patentees use a supplemental device there described, is not to be read, as a limitation, into a claim which contains no reference to it, especially when the significance of its omission is emphasized by its incorporation into a subsequent claim.

2. SAME—INVENTION—INFRINGEMENT—PNEUMATIC TIRES.

The Brown and Stillman patent, No. 488,494, for a pneumatic tire containing an inflatable tube, and made inextensible circumferentially by means of circumferential enforcements along two lines within the edges and above the bottom of the groove, whereby the tire is made to seat itself on inflation and the necessity for mechanical connection with the rim is obviated, construed as to the first claim, which is held to show patentable invention, and to be infringed by the Moomey patent, No. 513,617.

Duncan & Page, for complainant.  
Hallock & Lord, for defendant.

BUFFINGTON, District Judge. The American Dunlop Tire Company file a bill against the Erie Rubber Company for alleged infringement of the first claim of letters patent No. 488,494 (now owned by complainants), which was applied for June 20, 1891, and issued December 20, 1892, to Alex. T. Brown and George F. Stillman. The subject-matter of that patent and of the present bill is a pneumatic tire, which is so named from the fact that it is inflated with air, to form a cushion which lessens jars in passing over uneven surfaces. In bicycles, iron tires were first used; later came solid rubber ones, and these in time were succeeded by the pneumatics. Prior to the patent in suit, these latter were of two general kinds,—“hose pipe,” tires or endless tubes of canvas or India rubber, usually cemented to the rim; and “double tubes,” which consisted of an inflatable tube within an outer, nonexpansible shoe or covering divided longi-