

communication with the upper bend substantially as described in complainants' specification. I do not find that the combination of either of the claims in suit is in the structure complained of. The bill is therefore dismissed for want of equity.

MISSOURI LAMP & MANUFACTURING CO. et al. v. STEMPEL.

(Circuit Court, E. D. Missouri, E. D. June 11, 1896.)

No. 3,798.

1. PATENTS—ESTOPPEL BY ASSIGNMENT—CONSTRUCTION OF CLAIMS—PRIOR ART.
A patentee, by his acts and representations made in securing his patent, and his subsequent assignment thereof, is estopped from questioning its novelty or utility, but not from showing the prior state of the art, for the purpose of determining the proper construction of its claims.
2. SAME—PLEADING—PRIOR ART.
The court may consider the prior state of the art for the purpose of determining the proper scope and extent of the patent, even though no reference is made thereto in the answer or notice given, as required by Rev. St. § 4920.
3. SAME—LIMITATION OF CLAIMS—PRIOR ART—FIRE EXTINGUISHERS.
The Stempel patent, No. 489,767, for an improvement in fire extinguishers, is limited by the prior state of the art, and by the amendments required by the patent office, to the distinguishing novel features of a fragile and hermetically sealed stopper, and a break ball deposited within the chemical bottle, which is contained in the tank, and is therefore not infringed by the subsequent patents Nos. 511,469 and 515,846, to the same inventor, in which the break ball is deposited upon the bottom of the tank, and breaks the chemical bottle by falling against its bottom when the tank is inverted.

This was a suit in equity by the Missouri Lamp & Manufacturing Company and Joseph F. Wangler against Omar A. Stempel for alleged infringement of a patent for an improvement in fire extinguishers.

Edward J. O'Brien, for complainants.
James A. Carr, for defendant.

ADAMS, District Judge. This is an action for an alleged infringement of letters patent No. 489,767, for a certain new and useful improvement in fire extinguishers, dated January 10, 1893. The defendant was the inventor, and, prior to the application for the patent, had duly assigned a two-thirds interest in his invention to the complainants, who, with him, were the grantees named in the patent. After issue of the letters patent, the defendant duly assigned his remaining one-third interest to the complainants, who thereupon, and on May 22, 1893, became the owners of the entire patent. Defendant, Stempel, afterwards applied for, and on December 26, 1893, secured, a grant to him of letters patent No. 511,469, for a "new and useful fire extinguisher," and, after that, applied for, and on March 6, 1894, secured, a grant to him of letters patent No. 515,846, for "new and useful improvements in fire extinguishers"; and under these two last-named letters patent, employing some of the features of each,

the defendant has been making and selling fire extinguishers, which the complainants claim are an infringement upon their rights secured by the first-mentioned letters patent, No. 489,767. The answer denies the infringement, and sets up certain facts, amounting to a claim of a license by implication. The facts proved do not support the second defense, and the same is practically abandoned by defendant's counsel. It may be here noted that the answer discloses no notice, as required by section 4920, Rev. St., of anticipatory patents or prior use or knowledge of complainants' invention. Accordingly, the only issue now presented is whether the defendant has infringed upon complainants' patented rights.

It is claimed by complainants' counsel that, because defendant is their assignor, he is not only estopped from denying the validity of their patent, but thereby also concedes that complainants are entitled to a broad construction, so as to make their patent fully and effectually operative, certainly as against him. That for this reason, as well as for the reason that no notice of anticipatory patents or prior use was given complainants in defendant's answer, a consideration of the prior state of the art is not permissible, and all evidence in the record relating thereto should be expunged. The authorities do not seem to support the complainants' counsel in the particulars last alluded to. The defendant, by his acts and representations made in securing the patent, and his subsequent assignment thereof to the complainants, is undoubtedly estopped from setting up in this suit, in which his assignees are complainants, the invalidity of the right sold them by him. He cannot question the novelty or utility of the invention so sold them.

Any consideration of the prior art, for the purpose of establishing want of novelty or utility in complainants' patent, is therefore improper and inadmissible in determining this case. But it does not follow that no consideration can be given to the prior state of the art. The question still remains: What is complainants' invention? Is it a primary one, and are the complainants therefore entitled to a broad construction of their claims, or is it secondary, requiring a narrower or more strict construction to be placed upon the claims? To aid in answering these questions, it is entirely proper to consider the prior state of the art. *Eachus v. Broomall*, 115 U. S. 429, 6 Sup. Ct. 229; *Grier v. Wilt*, 120 U. S. 412, 7 Sup. Ct. 718; *Cash-Carrier Co. v. Martin*, 14 C. C. A. 642, 67 Fed. 786; *Babcock v. Clarkson*, 11 C. C. A. 351, 63 Fed. 607. And such consideration may be had notwithstanding no reference is made thereto in the answer, or no notice given thereof, as required by section 4920, *supra*. *Eachus v. Broomall*, *supra*; *Grier v. Wilt*, *supra*.

The invention involved in this case consists of an improvement in fire extinguishers, and, speaking in a general way, it consists of a circular tank, to be filled with some alkali solution, a screw cap to cover the aperture at the top of the tank, from which suspends, inside the tank, a long-necked bottle, with a globular gullet midway the neck, and with an expanded bottom for holding an acid. In this gullet is placed a small iron ball, called a "break ball," which is so controlled by the gullet that it cannot fall to the bottom of the bot-

tle into the acid there contained, and that, upon an inversion of the bottle, it will readily be released from its socket, and, by gravity, descend the neck of the bottle to the aperture. This bottle, so containing the acid in the bottle and the ball of iron, midway its neck, is hermetically sealed with a thin crystal stopper, so fragile as to be readily broken by the ball of iron falling against it; and the bottle is so suspended by intermediary strips from the cap as to permit the escape and precipitation of the acid through the broken stopper into the tank, there to mix with the alkali, and thus generate the expansive gas, to be thrown upon a fire by means of a short hose and nozzle. A cut of this tank and bottle, with figures and numbers referred to in the description and claims of the patent, is as follows:

Fig. I.
Tank

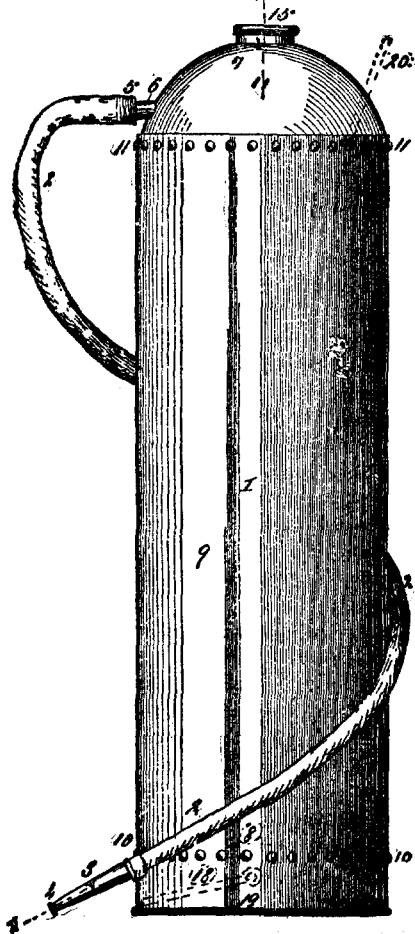
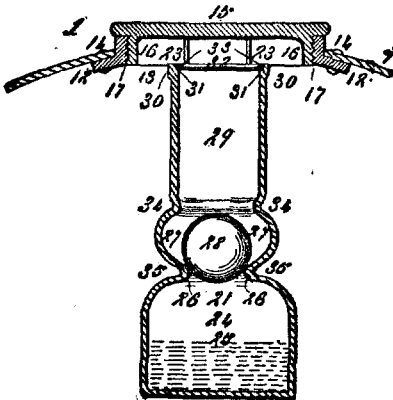


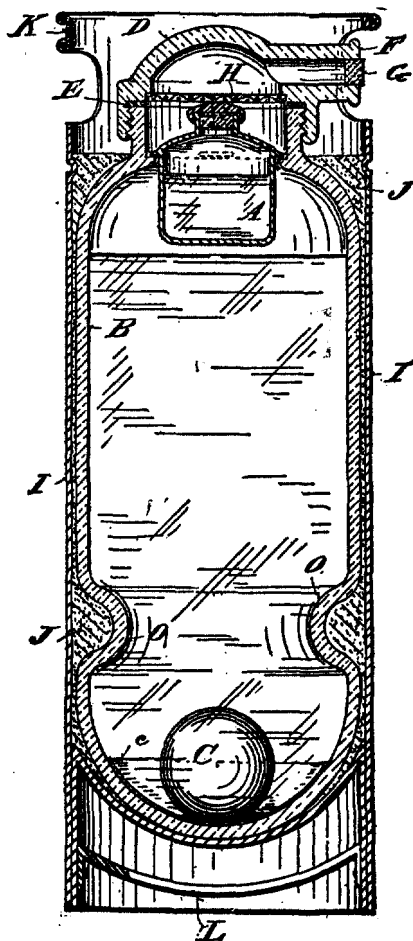
Fig. II.



This tank (so containing its alkali and the interior bottle of acid, with its break ball), when demanded for practical use, is quickly inverted, and thereby the break ball falls against the bottle stopper, and the acid unites with the alkali, and the gas for extinguishing fire is immediately generated, and ready for use.

The record shows that some twenty patents were offered in evidence to disclose the state of the art in fire extinguishers prior to the application for complainants' patent in suit. Thirteen of these patents show an acid bottle contained inside of an alkali tank, and some adequate means for precipitating the acid upon the alkali when needed for practical use. Of these thirteen patents, nine show the acid bottle supported in the upper portion of the tank. Eleven show means for breaking the acid bottle in order to affect a commingling of the acid with the alkali for use. Of these eleven, five show loose weights or balls to be used for the purpose of breaking the acid bottle; and two of them, at least, show a ball or weight located normally at or near the bottom of the alkali tank, in position to fall, upon an inversion of the tank for action, against the acid bottle, pendant from the top. These are the Hotchkin & Raby United States patent, No. 382,812, and the Hudson English patent, dated February 2, 1881. From these patents, and others not necessary to be now specified, it is apparent that the field of invention in the general line of complainants' patent had been fully exploited before application was made for their patent, now under consideration. The alkali tank containing the acid bottle, and the necessity for breaking the latter in order to generate the requisite gas, had been well known and employed in practical use for years. The use of the break ball to operate by gravity on the inversion of the tank had been known and employed since 1881. It may therefore be safely stated that, when the complainants' assignor entered the field of invention, he found each and all of the elements which he employed in practical use, in one form or another, different, it is true, in detail of combination and arrangement, but not in general design or purpose. In this state of the art, the complainants' assignor entered the field, and devised what is called in the description of his invention "an improvement" in the form of "attachments" for a recognized and existing type of fire extinguishers. The distinguishing and novel features of his invention, as claimed and described, are, in my opinion, the fragile and hermetically sealed stopper, 32, and the break ball, 28, deposited within the chemical bottle, 21; and his inventive skill was exhibited, not in making use of a stopper or break ball, but in the peculiar, and, in my opinion, novel and useful, method of their construction and operation. The complainants are therefore entitled to protection against any infringement of these novel and useful features.

The defendant's patents Nos. 511,469 and 515,846, under one or both of which he manufactured and sold the fire extinguisher claimed to be an infringement of the complainants' rights, contained neither one of these peculiar features. His fire extinguisher, as constructed from his patents, and as actually used, is fairly represented by the following cut:



From this cut it appears that defendant employs an alkali tank, containing a chemical bottle pendant from a flange, on the inside of the tank, near its neck, and a break ball of iron loosely located at the bottom of the tank, ready, upon an inversion of the tank for use, to drop through the contained alkali solution, against the bottom of the chemical bottle, and thereby break the same, and precipitate its acid contents upon the alkali of the tank, and thus generate the required expansive force. There are some peculiar features relating to the construction and adjustment of the several parts of defendant's device which may differentiate it in details from the Hotchkin & Raby patent, No. 382,812, and the Hudson English patent; but it seems to me to accomplish the same result, in practically the same way, as these last-mentioned patents. The defendant's device, therefore, cannot be held to be an infringement upon complainants' device with-

out holding, in effect, that complainants' device covers the inventions of Hotchkiss & Raby and Hudson.

It is well-settled law that claims of a patent must be read and interpreted with reference to the prior state of the art, and cannot be so construed as to cover anything disclosed by prior devices. *Knapp v. Morss*, 150 U. S. 221, 14 Sup. Ct. 81. In the light of the prior state of the art, as already disclosed, it is clear that the complainants' patent cannot be held to be a pioneer in any sense, and complainants are not entitled to the broad construction of its claims which is ordinarily given to pioneer inventions. In my opinion, the prior state of the art, as applicable to this case, necessarily limits complainants' invention to one of detail of construction, and particularly to the details already alluded to, namely, the hermetically sealed fragile stopper, and the break ball deposited within the acid bottle; and, inasmuch as the defendant employs neither of these details in his device, he is not an infringer.

For another reason, also, the same conclusion must be reached. When complainants' assignor first presented his application to the patent office, he claimed broadly as follows: "In a fire extinguisher, the combination of the chemical bottle, 21, the break ball, 28, and the stopper, 32, substantially as described." This claim was rejected, on the ground that it was anticipated by prior patents. To avoid the same, the solicitors, duly authorized for that purpose by complainants, as well as by their assignor, made an amendment so as to claim specifically the particular chemical bottle already referred to, and the break ball deposited within said bottle. Their amended claim reads as follows: "In a fire extinguisher, the combination of the chemical bottle, 21, having the acid or chemical tank, 24, the break ball, 28, deposited within said bottle, and the stopper, 32, substantially as described." Upon this amended claim the patent was issued, and accepted by the complainants. They are therefore estopped from claiming the broad construction of the claim as rejected, and are limited to the particular construction, corresponding to their claim as allowed. *Shepard v. Carrigan*, 116 U. S. 593, 6 Sup. Ct. 493; *Sutter v. Robinson*, 119 U. S. 530, 7 Sup. Ct. 376; *Roemer v. Peddie*, 132 U. S. 313, 10 Sup. Ct. 98. It results from the views last expressed, also, that the defendant has not infringed upon complainants' rights under the patent in suit.

In reaching the foregoing conclusion, I have dealt mainly with the first claim of complainants' patent. Inasmuch as the other claims contain either the elements of the first, or are broad, general claims, similar to the ones rejected by the patent office, and which, for reasons already stated, cannot confer a monopoly upon complainants, it is not considered necessary to refer more particularly to them in this opinion. It follows that complainants' bill must be dismissed.

SWIFT v. EAMES VACUUM BRAKE CO.

(Circuit Court of Appeals, Second Circuit. March 22, 1895.)

PATENTS—CONSTRUCTION AND INFRINGEMENT—EXHAUST STEAM MUFFLERS.

The Swift patent, No. 209,939, for an improvement in mufflers for the escape of exhaust steam, construed, and held infringed by an apparatus made under the Eames patent, No. 228,744.

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

This was a suit in equity by William H. Swift against the Eames Vacuum Brake Company for alleged infringement of a patent. The circuit court sustained the patent, and held that the same was infringed by the defendant's apparatus. The following opinion was rendered below by Wheeler, District Judge:

The plaintiff's patent, No. 209,939, dated Nov. 12, 1878, for an "improvement in mufflers for the escape of exhaust steam," is, upon the pleadings and proofs, to be compared with patent No. 131,807, dated October 1, 1872, and granted to George S. Bassett, for an "improvement in vaporizers for steam-heating apparatus," and No. 195,003, dated September 11, 1877, and granted to Herman Guels, for an "improvement in devices for preventing the noise of escaping steam," as well as with No. 228,744, dated June 15, 1880, and granted to Elisha D. Eames, for a "noise muffler," under which the alleged infringement is made. Bassett's vaporizer has angular diaphragms, against which the steam is sent for the taking out of water and conducting it away, and a perforated cap for spraying the steam into the air of the heated rooms to moisten it; and Guels' devices are finely-perforated plates. The plaintiff's muffler is composed of literally sinuous passages, and one or more series of perforations graduated to proper size to prevent setting back the steam, and dividing it into jets. The diaphragms of Bassett form pockets for drying the steam, rather than passages mitigating its flow; and the passage leading that part of it wanted for spraying to the perforations is not sinuous, and the perforations are not graduated to prevent setting back. The devices of Guels have no sinuous passages. And neither anticipates the combination of sinuous passages and one or more series of graduated perforations of the plaintiff's patent. A construction of the patent always including an intermediate series of perforations is plausibly argued for the defendant; but one series, which may be the outer one, or more, seems to be well covered by the patent. The patent of Eames and the alleged infringement to a greater extent have the sinuous passages mitigating the flow of the escaping steam, and both have one series of perforations, dividing it into jets. The patent of Eames may cover improvements upon the plaintiff's muffler; but, notwithstanding this, the substance of the plaintiff's patented invention appears to have been taken into the improvement, and the alleged appears to be an actual infringement. Decree for plaintiff.

J. E. Maynadier, for appellant.

Cowen, Dickerson & Brown, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

PER CURIAM. Inasmuch as no defense of want of novelty, based on the prior patent to Bassett, has been interposed by the defendant, and we are unable to adopt the narrow construction of the first claim of the patent in suit contended for in behalf of the defendant, we are constrained to affirm the decree of the court below, and do not deem it necessary to add anything to the observations in the opinion of Judge Wheeler. The decree is affirmed, with costs.