

the testimony in the case. Appellate tribunals have been created by the immigration law to correct any errors of the commissioner of immigration in cases where there is conflicting testimony. Where there is some competent evidence before the commissioner sustaining his ruling, this court will not interfere because there was also before him contradictory testimony, which he apparently disbelieved.

The writ is dismissed.

RICKS, Jr., *et al.* v. CRAIG *et al.*

(Circuit Court, D. Massachusetts. November 6, 1891.)

PATENTS FOR INVENTIONS—INFRINGEMENT—PRIOR STATE OF ART—ENGINE LUBRICATORS.

Letters patent No. 214,589, issued April 22, 1879, to Nicholas Seibert, were for a new and improved feed indicator and reducing plug attachments for oil-cups, used for oiling the steam-chest and cylinder of engines, so as to produce a uniform flow of oil. The specifications show that the discharge pipe of the oil-cup is connected directly with the steam-chest, and that, owing to the varying pressure in the chest, due to the opening and closing of the ports, the backward pressure of the steam in the oil-cup would vary, and thus cause an unequal flow of oil, and that the invention is designed to equalize this pressure by inserting in the discharge pipe, between the cup and the chest, a plug with an opening so small that steam could not pass through rapidly enough to communicate the rapid changes in the chest. Claim 2 is for "the reducing plug, constructed and operated as and for the purposes described." *Held* that, in view of the prior state of the art, this claim must be restricted to the purpose described, and it is not infringed by the patent of April 20, 1886, to William H. Craig, in which the pressure is made uniform by an "equalizing pipe," opening into the discharge pipe and connecting with the steam-pipe at a point where the pressure is constant, and also having an obstruction in the discharge pipe, with a small opening, fitted with a spindle valve, since it appears that this latter device was for the purpose of maintaining an equal pressure as against the suction produced by shutting off the steam from the steam-chest when the locomotive was running down grade.

In Equity. Bill for infringement of patent.

Thomas Wm. Clarke and Edmund Wetmore, for complainants.

William K. Richardson and F. P. Fish, for defendants.

COURT, J. The bill in this case charges the defendants with infringement of the second claim of letters patent No. 214,589, granted to Nicholas Seibert, April 22, 1879, for a new and improved feed-indicator and reducing-plug attachment for oil-cups. This class of lubricators is used upon steam-engines. Two things seem to be necessary to make a good lubricator,—the feed of the oil must be regular, and there must be an observation chamber, so that the engineer may see the quantity and regularity of the feed. The lubricator is generally fed by hydrostatic pressure. In the ordinary form of construction there is a pipe leading from the boiler or steam-pipe to a condensing chamber, where the steam is condensed into water. This chamber is connected at the bottom with the bottom of an oil reservoir. As the column of water is higher than the oil, the water passing into the oil receptacle will displace an equal

quantity of oil, which is carried by a pipe to the sight-feed in a glass observation chamber, and from there it passes through a discharge pipe to the parts to be lubricated. As the steam enters the condenser under boiler pressure it is manifest that, in order to prevent this pressure from affecting the flow of the oil, there must be an equal back steam pressure in the discharge pipe. This is accomplished by connecting the discharge pipe with the steam-pipe, or with the same steam space as fills the condensing pipe. By this means there is secured a balanced steam pressure at the sight-feed, and the oil is fed regularly by hydrostatic pressure. This form of lubricator is applied to stationary engines. But in locomotive engines the discharge pipe is connected either with the dry pipe, which is analogous to the steam-pipe, leading into the steam-chest above the cylinder, or with the steam-chest; and under these conditions it becomes a more difficult problem to produce a balanced steam pressure upon the oil-cup. When the discharge pipe is connected with the dry pipe on the engine side of the throttle-valve, it is apparent that, when the valve is closed in stopping the locomotive, or in running down grade, the steam will be entirely cut off from the discharge pipe, and there will be no back steam pressure to counterbalance the forward pressure from the condenser, and consequently the flow of oil will be increased. Again, when the discharge pipe is connected with the steam-chest, which opens into the cylinder, there is not only this unbalanced pressure to overcome, but there is also the fluctuations of pressure coming from the steam-chest when the engine is running, caused by the steam passing into the cylinder when the valves in the steam-chest are open, and remaining in the steam-chest when the valves are closed, in consequence of which the pressure in the steam-chest will be less when these valves are open and greater when they are shut. It is the devices to meet and overcome the irregularities in the oil-feed caused by these different variations in steam pressure which form the subject-matter of the later patented improvements in lubricators. As the present controversy turns upon the proper construction to be given to one of these improved devices, it is necessary to briefly review the progress and state of the art.

In the early Absterdam patent of 1854 there is shown a lubricator having an observation chamber, but this apparatus involved the maintenance of a uniform bulk of air in the chamber which was found impracticable, and consequently there was a fluctuating pressure. The two patents granted to Gates, dated September 20, 1870, and April 29, 1873, were for sight-feed devices. In the first patent the feed was measured by water dropping through the oil in a transparent chamber, while in the improved sight-feed described in the later patent the oil passed in drops upward in a column of water inclosed in a transparent chamber. It may be said that Gates was the first inventor of a practical sight-feed in lubricators. In 1871, Nicholas Seibert, assignor of complainants, took out his first patent. This invention shows a balanced steam pressure, but has no sight feed. The discharge pipe is connected directly with the steam-pipe from the boiler, or with the same steam space as the condensing pipe, so that the backward pressure of steam through the

discharge pipe is equal to the forward pressure in the condenser. In 1876, Seibert took out a second patent. This deals with lubricators for railway engines. The specification says:

"My invention relates to lubricators for railway engines, and is an improvement on my invention covered by letters patent No. 111,881, dated February 14, 1871; and it consists in devices for equalizing the steam pressure upon the oil-cup when the steam is shut off from the steam-pipe, as is usually the case on down grades."

In this apparatus the discharge pipe enters the dry pipe of the locomotive, and when the steam is shut off by the throttle-valve there will be little or no back pressure to offset the forward steam pressure from the condenser, and the oil will consequently be forced out of the cup more rapidly than is desirable for a proper feed. To overcome this difficulty is the object of the invention. This is accomplished by what is called an "equalizing pipe," running from the discharge pipe to the condensing pipe, and thus connecting the discharge pipe with the steam from the boiler, or with the same steam space as supplies the condenser. In 1878, Seibert took out another patent for a sight-feed device. On April 22, 1879, the patent in suit was issued to him. This patent covers two improvements,—an improved sight-feed apparatus, and a peculiarly constructed reducing plug, to secure an equable pressure in the discharge pipe. The patent has two claims. The first relates to the sight-feed, and the second is for "the reducing plug, constructed and operating as and for the purposes described." It is only the second claim which is here in controversy. The reducing plug is a device for obstructing the discharge pipe, leaving only a small opening through the pipe. It may be placed at any point in the pipe, though preferably near the steam-chest; and its object is to maintain "a nearly equable pressure in the pipe above the point at which it is placed." The specification then goes on to say:

"The discharge pipe being connected and opening into the steam-chest, (the pressure in which varies somewhat, being the least as the ports are opened to admit steam to the cylinder, and greater while the ports are closed,) and the reducing plug being placed in the discharge pipe, the pressure in the discharge pipe above the reducing plug is maintained at the medium pressure in the steam-chest, since the opening through the plug is so small that, although the pressure is varied in the steam-chest, it permits neither the passage of oil in one direction nor steam in the other quickly enough to reduce or increase the pressure in the oil discharge pipe above that point."

In his 1876 patent Seibert sought to overcome the unbalanced steam pressure arising from shutting off the steam in stopping the locomotive or in going down grade by means of the equalizing pipe, while in his 1879 patent his object was to correct the fluctuations of pressure in the steam-chest when the engine is running, by the introduction of the reducing plug.

The defendants' lubricator is constructed after a patent granted to William H. Craig, April 20, 1886. The parts in this lubricator are arranged in a very compact form. It is only necessary to refer to such features of the apparatus as bear upon the questions in this case. In

the Craig lubricator the discharge pipe is connected with the steam-chest. There is also found an equalizing pipe, such as is seen in the 1876 Seibert patent. In the discharge pipe, near the steam-chest, Craig inserts a spindle valve. At this point the pipe is obstructed or dammed up nearly its whole diameter, leaving only a small orifice. In this small opening is the valve-seat, and by turning the spindle the aperture may be entirely closed. The specification states that the purpose of the valve is for opening or closing this orifice. The contention of the complainants is that this obstruction or dam, having a small opening through it, and situated in the discharge pipe, is a reducing plug, and therefore within the second claim of the Seibert patent of 1879. This position is resisted on two grounds: It is contended,—*First*, that, in view of the prior state of the art and the language of the specification, the Seibert patent must be limited to the special form of reducing plug therein described; and, *second*, that, however this may be, the defendants' valve is not inserted in the discharge pipe for any such purpose as the reducing plug in the Seibert lubricator, and has no such operation.

As bearing upon the first point, it is admitted that reducing plugs inserted in pipes for the purpose of partially obstructing the flow of liquid are old. Further, there is found in the earlier Flower patent of February 19, 1878, an obstructed passage, corresponding to a reducing plug, in the discharge pipe of a lubricator. The specification of the Flower patent leaves the question in doubt whether the discharge pipe is connected directly with the steam-chest, or, as in the Seibert patent of 1871, with the steam-pipe from the boiler. It is admitted, however, that in the Flower lubricator, as constructed, the discharge pipe is connected with the steam-pipe, and, consequently, with the same steam space as the condensing pipe; in other words, the obstruction of the discharge pipe in the Flower apparatus was, in fact, only used in that form of lubricator where the steam in both the condensing and discharge pipes is derived from the same steam space, and therefore the Flower patent is no anticipation of the Seibert reducing plug, because that was intended to overcome fluctuations in pressure in another class of lubricators, where the steam in the discharge pipe comes from a different steam space from that of the condenser, and it is not denied that Seibert was the first to apply a reducing plug to this kind of lubricator. If, with the history of the art before us, the reducing plug of the Seibert lubricator is patentable by reason of the new results it accomplishes, then I am inclined to the opinion that the difference in mechanical form between the Seibert reducing plug and the Craig valve would not relieve the defendants from infringement. The thickened-up discharge pipe, leaving a narrow opening at a point above the steam-chest in the Craig lubricator, seems in construction to be the equivalent of the reducing plug with its screw-thread, and having a narrow opening through it, of the Seibert patent.

But the more important inquiry remains whether the function or operation of these devices is the same in both lubricators. It is upon this question that the case largely turns, and I must confess that it is not free from difficulty. The defendants deny that the part of their

valve which nearly fills up the discharge pipe operates in any such way, or that it was introduced for any such purpose, as the Seibert reducing plug; and, if this proposition is true, then there is no infringement. The Seibert patent declares that the plug is introduced for the purpose of correcting fluctuations of pressure in the steam-chest, thereby securing an equable pressure in the discharge pipe above that point. The main object to be accomplished in a lubricator is to obtain regularity in the flow of oil at the sight-feed,—that is, only a certain quantity of oil should be regularly discharged from the reservoir in a given time; and the chief purpose of the Seibert reducing plug is to secure this result by maintaining an equable pressure in the discharge pipe. Now, the defendants contend that this thing is done in their lubricator by the equalizing pipe, whereby they obtain a balanced steam pressure at the sight-feed from the same steam space, and it must be confessed that this theory is supported by the testimony of the complainants' expert as well as the defendants'. The defendants further say that the purpose of the dam in their valve is to arrest the sudden flow of oil caused by the draft or suction in the pipes, which follows the sudden turning off of the steam from the steam-chest when the locomotive is stopped or is running down grade. And here we reach this contradictory position of the parties to this suit. According to the theory of the complainants and the Seibert patents, the office of the equalizing pipe is to correct the unbalanced pressure caused by suddenly shutting off the steam from the discharge pipe on stopping the engine, or on down grades, which is the Seibert 1876 patent; and the office of the reducing plug is to correct variations of pressure in the steam-chest, when the engine is running, from affecting the feed; or, more exactly stated, to maintain an equable pressure in the discharge pipe above where the plug is located. According to the theory of the defendants, the reverse is the case,—that is, the dam or valve in the discharge pipe secures a balanced pressure when the steam is suddenly cut off from the discharge pipe on stopping the engine, and the equalizing pipe guards against any unbalanced pressure caused by the fluctuation of pressure in the steam-chest affecting the feed while the engine is running. Now it seems to me that the evidence in this case, and the better reasoning, is on the side of the defendants as to the real office of the equalizing pipe and the throttled discharge pipe in their lubricator. I think the defendants have shown, and that it is mechanically true, that their equalizing pipe meets the difficulty springing from the variation of pressure in the steam-chest when the engine is working, and that the main object of the dam in the discharge pipe is to arrest a sudden flow of oil, when a vacuum or partial vacuum exists in the steam-chest, caused by closing the throttle-valve. It may be true that the reducing plug of the Seibert patent in suit will maintain an equable pressure in the discharge pipe above the point of its introduction, and consequently a regular flow of oil at the sight-feed while the engine is running, but it appears uncontradicted in this record that regularity of feed in the observation chamber, under these circumstances, is brought about in the defendants' lubricator by the equalizing pipe;

and therefore the main purpose of the complainants' plug is accomplished in defendants' lubricator by the equalizing pipe. In view of the fact that an obstructed passage-way or reducing plug in the discharge pipe, as applied to one form of lubricators, was old at the date of the Seibert invention, I think the second claim of the patent should be limited to the purpose for which it was mainly introduced by the patentee, and, if the same result is reached in defendants' lubricator by other means, then it is not within the Seibert patent.

There is only one remaining point to consider. The Seibert specification declares that, by means of the reducing plug, an equable pressure from the steam-chest is maintained in the discharge pipe above the plug. The plug may be located at any point in the discharge pipe, though preferably near the steam-chest. Now, while it may be said that the Craig equalizing pipe causes a given quantity of oil to be regularly fed at the sight-feed and down to the point where the equalizing pipe is joined to the discharge pipe, yet from that point in the discharge pipe to the steam-chest the oil would be subject to the fluctuations of pressure in the steam-chest. The main purpose of a lubricator is to provide means whereby only a given quantity of oil shall be taken from the reservoir in a given time, and that this shall flow at regular intervals through the observation chamber. The fact that this given quantity of the lubricant, after it has passed the sight-feed, or after it has passed the point of union between the equalizing pipe and the discharge pipe, should, in its further progress through the discharge pipe to the cylinder, be subject to the variations of pressure in the steam-chest which take place when the engine is running, does not seem to be material. At least, there is nothing in this record which shows that it is material. Seibert himself says in his patent that the plug may be located at any point in the discharge pipe, though he prefers a point near the steam-chest. It also appears that the Craig valve is situated some distance from the steam-chest. Assuming that the cylinder, and the parts connected therewith, is the objective point of the oil, it is manifest that there is a point in all lubricators where the oil will be subject to the steam-chest's fluctuations of pressure. Whether this point is a little further up in the discharge pipe towards the sight-feed, or is near where that pipe enters the steam-chest, does not appear to be important; the essential thing is to regulate the quantity of oil which may be allowed to pass out of the reservoir. If the defendants' theory as to the functions of the equalizing pipe and the spindle valve in the Craig lubricator is wrong, I think the complainants should have shown this by rebutting evidence; but, upon the record as submitted, I feel bound to hold that there is no infringement, and it follows that the bill must be dismissed.

THE PARTHIAN.

THE FLORENCE.

(District Court, D. Massachusetts. September 29, 1891.)

COLLISION—STEAM AND SAIL—FOG-HORNS.

As the steamer Parthian was proceeding northward 50 miles off Sandy Hook, in a thick fog, she heard prolonged blasts resembling those of a steam-whistle on her port bow, and, supposing them to be made by a vessel under steam, slowed down to half speed, and gave two blasts on her whistle, as a signal that she would direct her course to port, and pass on the starboard side. Receiving two short blasts in return, she put her helm hard to starboard, and as she was falling off repeated her signal, which was answered by a single blast. She thereupon threw her wheel hard to port, and reversed her engines full speed astern, but shortly afterwards collided with a sailing vessel. The sounds made by the latter were produced by an instrument blown by steam from a boiler carried in the hold. Held, that the use of such an instrument, instead of the usual atmospheric horn, rendered the sailing vessel solely in fault.

In Admiralty. Libel by the owners of the schooner Florence against the steamer Parthian for damages for a collision. Libel dismissed.

E. P. Carver, for the Florence.

L. T. Dabney and *F. Cunningham*, for the Parthian.

NELSON, J. This collision occurred on the 16th of July, 1890, at 8 o'clock in the morning, in a thick fog. The place of the collision was 55 miles S. E. by E. from Sandy Hook. The steamer Parthian, of the Boston & Philadelphia Line, was on one of her usual trips from Philadelphia to Boston. The schooner Florence was bound on a voyage from Bangor to Philadelphia, with a cargo of ice. The wind was light from the north-west. As the Parthian was proceeding on her course to the northward, enveloped in the fog, the men in charge heard on the port bow prolonged blasts, repeated at frequent intervals and coming nearer, resembling blasts made by a steam-whistle, which they took to be the fog-signals of a vessel under steam. The steamer was thereupon slowed down to half speed, and two short blasts were made with her whistle, as a signal that she would direct her course to port, and pass the approaching vessel on her starboard side. Receiving in reply two short blasts, and deeming this to be an acceptance of the proposal indicated by her signal, that the vessels should pass starboard to starboard, her wheel was put hard to starboard. As she was falling off to port under her starboard wheel her signal was repeated, and receiving back a single blast only, her wheel was thrown over hard to port, and her engines stopped and reversed full speed astern; but before she could be stopped the schooner Florence appeared out of the fog crossing the Parthian's bows from starboard to port. Nothing more could be done to prevent a collision, and she struck the Florence on her port side just aft of her main rigging. The sounds which the men on the Parthian had mistaken for the fog-signals of a steamer proved to have come from