# KIDD *v.* HORRY.

*Circuit Court, E. D. Pennsylvania.* January 16, 1888.

1. PATENTS FOR INVENTIONS—INFRINGEMENT—GAS APPARATUS.

The essential parts (so far as here involved) of the device in letters patent No. 247, 925, for an "apparatus for enriching gas," or heater, are a chamber provided with a series of corrugations, and a disk or partition for causing a circulation of gas through the chamber, dividing it into currents, the only means, as was supposed, of thoroughly heating the gas, and feeding the hydro-carbon sufficiently. *Held,* not infringed by a device for heating, where the gas is confined in the pipe, in its ordinary form, and is heated by surrounding this pipe with a loose-fitting tube, or cover, into which heat from the illuminating burner is collected, and thus thrown upon the pipe; the column of gas not being divided into currents, and not heated throughout, the fact that the heat is sufficient to fuse the hydro-carbon being unimportant, since the supposed necessity of heating the gas thoroughly, and the device for regulating the heat, are obviated by the device.

2. SAME—CONSTRUCTION OF—DRAWINGS.

In this case, although the drawings filed show another form of heater, as well as the one for which letters patent issued, as there is no ambiguity, and nothing left for construction, the drawings of the patent should not be referred to in construing its claims.

3. SAME—INVENTION—DETACHING PART OF DEVICE.

A patent issued for a device to render detachable a part of a machine, by substituting a screw for the original fastening, will not be sustained.

In Equity. On bill for injunction.

*Francis Rawle* and *A. Q. Keasby,* for complainants.

*E. Clinton Rhoads* and *F. Carroll Brewster,* for respondent.

PER CURIAM. The bill charges infringement of letters patent No. 247,925, for "apparatus for enriching gas," dated October 4, 1881; and of No. 333,862, for "carbureting attachment for gas-fixtures;" dated January 5, 1886, issued to Joshua Kidd. The first of these letters is for an improvement on the invention of Livezey and Kidd, patented a year earlier. This is so stated in the specifications in the following terms:

"My invention relates to improvements in the invention for which letters patent No. 227,549 were issued jointly to myself and James Livezey, for apparatus to enrich gas, by mingling with it the heated vapor of hydro-carbon naphthaline, or other hydro-carbon."

The general features of Livezey and Kidd's apparatus were a gas-fixture having a carbureting vessel (of spherical or other convenient form) attached at the bottom, with gas-burners arranged under each, to heat it.

The illuminating burners were placed over this vessel, and immediately above them was an enlargement or outward projection of the gas-pipe, which extended over these burners, to receive their heat and communicate it to the descending column of gas. In operation the burners underneath the carbureting vessel fused the hydro-carbon, and thus raised a vapor, through which the gas was conducted; it then passed up to the illuminating burners, whose flames heated the projection in the pipe, and, consequently, the gas flowing down. The object of communicating heat to the gas was not to fuse the hydro-carbon, but to assist in presenting it to the burners in the most favorable condition for illuminating purposes. The complainant's improvement (as far as here involved) on this apparatus of Livezey and Kidd, consists in the peculiar character of heater which he placed above the illuminating burners, whereby the descending column of gas is separated into thin currents, and thoroughly heated throughout, to fuse the hydro-carbon, and dispense with the burners underneath. He describes the device as follows:

C, C, indicate a set of ordinary burners that are employed for illuminating and heating purposes, and to the main gas-pipe through which the supply of illuminating gas is derived. The gas from the pipe passes over an extended heating surface before passing to the carbureting vessels, and, as a means of providing such extended heating surface, I arrange above the burners a heater, E, consisting of a metal shell, that can be composed of two disks, *e, e,* each having a central opening, F, formed through the same, and each being provided upon its inner face with a number of corrugations that form passages, so arranged that the gas will flow through the same, in order to be thoroughly heated. As shown in Figs. 1 and 2, the opening through the heater, which is formed by these openings, F, in the disks or halves of the heater, is divided into two parts by a thin metal plate, or disk, F, that also lies between the two halves of the shell in order that the gas will flow from pipe, D, through opening, F, in the upper portion of the heater; thence out to and around the periphery of portion, F, and back through the passages in the lower portion of the heater to the pipe, H. It will be observed that the intermediate metal partition plate does not close the outer channel adjacent to the meeting rims of the halves of the shell, so that the currents of gas from pipe, A, will impinge upon and be split by the partition plate into divided currents flowing outward through the corrugations of the upper half, passing around the periphery of the partition, and then back through the corrugations of the lower half to the gas-pipes, H, that connects with the heater, and establishes portion of a pipe connection between the heater and the carbureting vessel.

The second claim (to which the charge of infringement is confined) is for this heater, and reads as follows:

"The combination with the pipes, D, H, of the gas-heating chamber, E, arranged above the burners, and provided with a series of channels or corrugations, and a disk or partition, $F^1$, for causing a circulation of gas through the heater, substantially as described."

This language is plain; nothing whatever is left for construction. The claim is for the combination of the several parts of the peculiar heater described. Of course it covers equivalents, but to say that a heater which does not combine the essential elements of this device is an equivalent, simply because it communicates sufficient heat to fuse the hydro-carbon, is a mistake.

The essential parts of the device are the "chamber provided with a series of corrugations, and a disk or partition for causing a circulation of gas through "the chamber. The complainant believed it necessary (at the date of his invention) to heat the gas throughout and thoroughly, to fuse the hydro-carbon sufficiently; and it was only by dividing the column into thin currents that this could be accomplished. The communication of heat to its surface would leave the center cold—as gas is a non-conductor. He therefore devised the heater described. The drawing filed, it is true, shows another form of heater, as well as this, in which the peculiar features above described are omitted; and it is referred to in the specifications, It is also true that the drawings of a patent may be appealed to in construing its claims, if the language is ambiguous, and leaves something for construction. But here, as we have seen, nothing is left for construction. The inconsistency of the drawing with the claim is, doubtless, attributable to the fact that the complainant made a broader claim at the outset. He supposes himself entitled to the credit of inventing a *method* for fusing the hydro-carbon by heat from the illuminating burners, and, consequently, made his drawing consistent with this view. The department, however, pared his claim down to the specific and narrow limits in which it was allowed. While he expressly disclaimed his original pretensions, in accepting this, the drawing was, no doubt, allowed to remain as originally filed.

It is quite clear that if the claim were broader it would conflict with the letters previously granted to Livezey and Kidd, to which, as we have seen, the patent is expressly subordinated by the specifications, if not with other prior inventions, and thus be rendered void through anticipation. Whether or not Kidd and Livezey's device (over the illuminating burners) would communicate sufficient heat to fuse, the hydro-carbon is unimportant. If not, it is clear that no more was required than simple enlargement to make it do so. What has been said virtually disposes of the complaint founded on the first patent in suit. The respondent's heater has not the peculiar and essential parts of the complainant's. The "chamber provided with a surface of channels and corrugations, and a disk partition for causing circulation of gas through the heater," are not in it. The gas is confined to the pipe, in its ordinary form, and is heated by surrounding this with a loose-fitting tube, or cover, into which heat from the illuminating burners is collected, and thus thrown upon the pipe. This heater will not do what the complainant's does,—divide the column of gas into separate currents and heat it throughout. It heats only the surface. That this is sufficient to fuse the hydro-carbon is not important. The complainant, at the date of his invention, as we have seen, believed such heating to be insufficient, and therefore provided a device to heat the gas throughout. He afterwards found, however, that at times the heat thus created was too great, and that a regulating device (which he attached) was necessary to control it. The respondent's heater avoids this necessity, and dispenses with the device. It is thus seen that the heaters are not the same, either in general character or effect.

As respects the charge of infringing letters No. 333,862, it is sufficient to say that we cannot sustain the patent. It is for rendering the carbureting vessel detachable, virtually for removing the solder which constituted the original fastening and substituting a screw. That is the whole of it. The opening originally left for inserting a pipe would, of course, answer as a feeding place when the vessel was detached; and, with this opening, of course another in the side would be superfluous. Surely when the convenience of filling the attached vessel was realized, any ordinary mechanic would have suggested the means of making it detachable. The question of infringement here need not be considered.

The bill must be dismissed, with costs.