

Case No. 5,128.

FRINK V. PETRY ET AL.

[11 Blatchf. 422; 1 Ban. and A. 1. 5 O. G. 201; Merw. Pat. Inv. 142.]¹

Circuit Court, S. D. New York.

Jan. 27, 1874.

PATENTS—REFLECTOR FOR GAS-LIGHTS—INFRINGEMENT—CONSTRUCTION OF CLAIM—NOVELTY.

1. The first claim of reissued letters patent, No. 3826, granted to Isaac P. Frink, February 8th, 1870, the original letters patent having been granted to him, as inventor, April 17th, 1860, for an “improved reflector for gas-lights,” namely, “In a reflector in which the illuminating rays are thrown down below the source from which they proceed, a reflecting surface, or series of reflecting surfaces, as set forth, lined, covered, coated or plated with either plain, corrugated or figured glass, in combination with another reflecting surface placed above or over the first surface, when suitable space is provided between the upper and lower surfaces for the passage of air and for ventilation, substantially as described,” is infringed by a reflector in which the upper reflecting surface is of a black color and which has all the features of said claim.
2. The second claim of reissued letters patent, No. 3827, granted to Isaac P. Frink, February 8th, 1870, on the surrender of the before named original letters patent, namely, “The combination with the metallic body of a reflector, of a glass covering or lining therefor, applied in sections or panels, substantially as and for the purposes described,” is infringed by a reflector in which there is a silvery coating on the outer surface of the glass, the inner surface of such coating acting as a reflecting surface, and the inner surface of the metallic body of the reflector having no capacity as a reflecting surface, and large parts of the metallic body of the reflector exterior to the glass being cut away, and the exterior surface of such silvery coating being covered with paint.
3. The said second claim of No. 3827 does not claim the use of glass in sections, in any and all reflectors, but claims a glass covering or lining for the metallic body of a reflector, applied in sections or panels, and combined with such metallic body, substantially as and for the purposes described. This means, the metallic body of such a reflector as is described and shown in the drawings—a reflector in which the illuminating rays are thrown down beneath the flame or source from which they proceed, and which has a metallic body, and in which such metallic body is lined or covered on the inside with glass, so that there is no intercepting of any of the rays of light by any part of the metallic body, in contradistinction to having part of the metallic body inside of the glass, so that such intercepting of rays of light is produced, and which is capable of having the glass lining to the metallic body applied by moulding or blowing the glass, if it be not attached in sections or panels, and which is manipulated and handled as a unit, and is supported and kept in position from above and not from below.
4. Although a reflector may have existed before, embodying all the features specified in the first claim of No. 3826, except the one of a glass lining to the reflecting surface or surfaces, yet, the employment of the glass, in the entire arrangement, being new, and being useful both in increasing the reflection of the light and in preventing the reflecting surface behind the glass from being scratched or tarnished, the entire arrangement in such first claim is patentable, all the features embodied in it having a mutual relation and interdependence, which make them patentable, as a whole. The claims above mentioned are new and valid.
5. Circumstances considered as bearing on the question of the prior existence of an alleged prior invention, such as, the failure of the alleged prior inventor to apply for a patent for it when he was applying for a patent for kindred inventions.

FRINK v. PETRY et al.

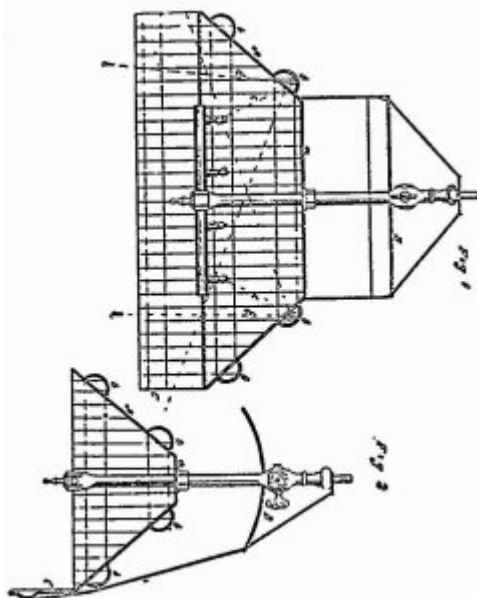
{This was a bill in equity by Isaac P. Frink against George Petry and others, and is heard on motion for the dissolution of an injunction.}

Edwin W. Stoughton and Miles B. Andrus, for plaintiff.

Samuel S. Fisher, Samuel A. Duncan, Frederic H. Betts, Solomon J. Gordon, and Daniel S. Riddle, for defendants.

BLATCHFORD, District Judge. In August, 1873, a preliminary injunction was granted in this case, restraining the defendants from making, using or selling any reflectors containing the improvement claimed in the first claim of reissued letters patent granted to the plaintiff February 8th, 1870, and numbered 3826, or the improvement claimed in the second claim of reissued letters patent granted to the plaintiff February 8th, 1870, and numbered 3827. The original letters patent were granted to the plaintiff, as inventor, April 17th, 1860, for an "improved reflector for gas-lights." They were reissued to him December 24th, 1861, and again reissued to him, in two divisions, February 8th, 1870, Division A being numbered 3826, and Division B being numbered 3827.

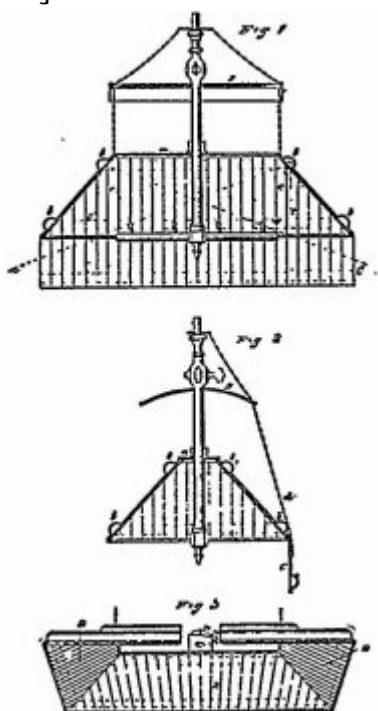
{Drawings of patent No. 3826, published from the records of the United States patent office.}



No. 3826 contains a drawing of two figures. Figure 1 is a longitudinal vertical section of one of the improved reflectors, showing a gas-pipe and burners in elevation. Figure 2 is an end or side transverse section of the same reflector, taken at right angles to figure 1. The specification says: "This improved reflector is designed for use in store windows, public buildings, halls, railroad and ferry or steamboat-stations, churches, theatres, and all other places in which the space to be lighted is large, and in which the light is required to be thrown down below the burner or burners whence it proceeds, and to be widely diffused in all directions. To this end my invention consists in the employment, in reflectors in which the illuminating rays are thrown down below the source from whence they proceed, of a reflecting surface, or series of reflecting surfaces, arranged as hereinafter described, lined, covered, coated or plated, with either plain, corrugated or figured glass, in combination with another reflecting surface placed above or over the first surface, with suitable space for the passage of air, and for ventilation, between the surfaces. In the example of my improvement illustrated in the drawing, A represents the body of the reflector, which may be made of tinned sheet iron, or of any other suitable material. It is lined or covered on the inside with glass, which may be either corrugated, or plain, or figured, on its surface. In the reflector represented it is corrugated, which is the mode in which I prefer to construct it, for the reason that the corrugations, especially when they run up and down the glass, as shown, instead of horizontally on it, enable the illuminating rays to be very widely and abundantly diffused, so that a reflector provided with glass having such a surface will light up a much larger space than when the corrugations are not employed. This glass lining or covering constitutes the lower or first reflecting surface of my improvement, and it may be composed of a series of surfaces, as x, x, x, Fig. 2,

extending horizontally around the inside of the body of the reflector. It will be seen that the body of the reflector shown in the drawing is that of a rectangular truncated pyramid. This form is especially intended for use in store windows, and constitutes” the subject of separate letters patent issued to me, of even date herewith; bury any desired contour, whether circular, conical or polygonal, may be given to the reflector, as its shape, as it is here described and claimed, is not material, and is designed to be varied to suit the particular situation in which it is placed, or the special purpose for which it is employed. In the upper part of the body of the reflector, an aperture or opening, a, is made, which serves to provide the necessary passage for air through the reflector; but, as some of the rays of light pass through this opening, I combine with the body, A, which constitutes the first surface or series of surfaces of the reflector, a second reflecting surface, shown at B, which is placed above the body, and intercepts and throws down nearly all the rays which would otherwise escape being reflected by the body, A, and would thereby fail of producing the best effect This second reflecting surface may be secured in position in any desired way, but it will be found convenient to suspend it by chains, wires or cords from a support attached to the gas tube, as shown in the drawing. The distance at which it should be located above the body or lower reflecting surface, A, will depend upon the dimensions of the opening, a, and upon the effect which it is desired the light shall produce. The relative distance illustrated in the drawing will, however, be found to answer well in practice. The outline of this upper reflecting surface is not material, as it may be flat or curved. It is represented in the drawing as curved, and I prefer that it should be so, because, when it is, it will better reflect the rays of light through the opening, a, thereby increasing the illumination below the reflector.” The first claim is in these words: “1. In a reflector in which the illuminating rays are thrown down below the source from which they proceed, a reflecting surface, or series of reflecting surfaces, as set forth, lined, covered, coated or plated with either plain, corrugated or figured glass, in combination with another reflecting surface placed above or over the first surface, when suitable space is provided between the upper and lower surfaces for the passage of air and for ventilation, substantially as described.”

{Drawings of patent No. 3827, published from the records of the United States patent office.}



No. 3827 contains a drawing of three figures, figures 1 and 2 being severally the same as figures 1 and 2 in the drawing of No. 3826. The specification says: "In reissued letters patent bearing even date herewith, I have described and claimed several improvements made by me in reflectors of that class in which the illuminating rays are thrown down beneath the flame or source from which they proceed; and the invention here patented consists of a special form and mode of construction of reflectors of this class, which are designed for certain particular uses, such, for example, as the windows of stores, or for picture galleries and other situations in which the reflector is required to be of considerable length. In the drawing, A represents the body of the reflector, which may be made of tinned sheet iron, or of any other suitable substance. It should be lined or covered on the inside with glass or other diaphanous material, which may be either corrugated, or plain, or figured on its surface, though it is represented in the drawing as corrugated, which is the mode in which I prefer to construct it. The form of the body of the reflector is that of an oblong truncated pyramid, the sides of which should preferably incline in an angle of about forty-five degrees, and an aperture or open space, a, is provided in the top, to furnish the requisite draft to the flame and to permit of ventilation. The sides of the reflector may be perfect planes, or they may be concave on their inner surface, if desired. * * * The object of the lining of glass or other equivalent material is to increase the reflection of the light, and to prevent the metallic surface of the reflector from becoming scratched or tarnished, which would greatly impair, if not destroy, its reflecting power. It will be observed, by inspecting the drawing, Fig. 3, that the glass which constitutes the

lining or covering of the reflector is made and attached in several strips, sections or panels, x, x, x, throughout the area of the inner surface of the reflector, instead of being applied by moulding or blowing the glass to correspond in figure with that of the reflector. This method of construction answers a very important purpose, inasmuch as, if the glass lining was put on in a single piece, by being moulded or blown to fit the reflector, great difficulty would be found in fitting it with sufficient accuracy and tightness, especially if the reflector be large, and skilful and expensive labor would be required for the work; and, when fitted, the glass would not have proper freedom to expand and contract without danger of breaking it, which would make the reflector nearly or quite worthless; and it would render the reflector, especially if it be large, so stiff and rigid that it could not be handled or transported without great liability to break or crack the glass. But, by my mode of inserting the glass in sections or panels, these evils are avoided, the different sections or panels can be rapidly put in place and secured, the requisite expansion and contraction provided for, and, if any of the sections or panels break, they can at once be easily and cheaply replaced by others, while the reflector is rendered so yielding, and so free from undue rigidity, that it can be moved or handled without any danger of cracking the glass.” The second claim is in these words: “2. The combination with the metallic body of a reflector, of a glass covering or lining therefor, applied in sections or panels, substantially as and for the purposes described.”

The defendants now move for the dissolution of the injunction.

Reissued patent No. 3826 first came before me in September, 1870, in a suit in equity brought thereon by the plaintiff against Charles F. Jacobsen and Charles E. Mabie, on a motion for a preliminary injunction. The decision I arrived at was, that the case on the part of the plaintiff was not so entirely free from doubt as to warrant the granting of the injunction, but that it was so strong as to require the entry of an order directing the defendants to file periodical accounts, under oath, of their sales or deliveries of the articles alleged to infringe the plaintiff's patent, and also to file a bond with sureties to respond for a recovery in the suit. An order to that effect was entered, and it directed that an injunction should issue on the first claim of No. 3826, unless the terms of the order should be complied with. The bond prescribed was not filed, and the injunction was issued. Neither of the reissued patents

had been sustained in a suit Various reflectors alleged to anticipate the invention of Frink were adduced on the motion—such as, some used in the store of one McKenzie, in Second street New York, some used in a store in Slain street, Poughkeepsie, and some used in churches in Williamsburg and Astoria. But, the principal reliance was on the alleged prior invention of one John Wyberd, in New York.

At the same time that the suit in equity against Jacobsen and Mabie was pending, a suit at law on both of the reissued patents, against them, in this court, brought by the plaintiff, was also pending. The two suits were commenced in May, 1870. The injunction continued in force, and, in November, 1872, the suit at law was tried. On that trial, on the question of novelty, patents granted in the United States to John O. Fletcher, March 30th, 1836, and July 12th, 1838, and a patent granted in England to Thomas Boyle, December 27th, 1854, and evidence as to the reflectors in McKenzie's store and as to Wyberd's alleged prior invention, were introduced by the defendants. Rebutting evidence was introduced by the plaintiff, and the jury found a verdict for the plaintiff, for nominal damages, on which a judgment was entered, December 20th, 1872, for \$435 56, which was costs. It is alleged that this was not a real trial, and that the verdict was the result of a submission by the defendants, not to the force of the plaintiff's proved case, but to considerations aside therefrom.

The bill in the present case was filed in July, 1873. It is founded on both of the reissued patents. It sets up the recovery in the suit at law against Jacobsen and Mabie. Shortly before this bill was filed, I had granted preliminary injunctions in suits against other parties on the same patents, who resisted the applications very strenuously, and set up, on the question of novelty, alleged prior invention and use by Francis P. Doyle, John Cook, and William and Donald McKenzie, in New York. In opposition to the granting of the injunction in the present case, the defendants set up the English patent to Thomas Boyle, of December 27th, 1854. Prior to the granting of the injunction the defendants had been making and selling reflectors constructed precisely in accordance with the descriptions and drawings and model of the plaintiff's patents. After the injunction was granted, they varied the construction, by making the upper reflecting surface of a black color, still retaining all the features of the first claim of No. 3826. They made, also, another variation, whereby they sought to maintain that they no longer had a reflecting surface lined with glass, in the sense of the first claim of No. 3826, and that they no longer had combined with the metallic body of a reflector a glass lining therefor, applied in sections or panels, in the sense of the second claim of No. 3827. This variation consisted in putting a silvery coating on the outer surface of the glass, and making the inner surface of such coating act as a reflecting surface, and depriving the inner surface of the metallic body of the reflector of its capacity as a reflecting surface, and also, in cutting away large parts of the metallic body of the reflector exterior to the glass, and covering the exterior surface of the silvery

coating with paint On a motion for an attachment for violating the injunction by making reflectors with these changes, I held such reflectors to be covered by the two claims in question, and granted the motion.

On the present motion to dissolve the injunction, the defendants rely, in the first place, on the alleged prior invention of John Wyberd. Wyberd, on the 20th of December, 1859, made an application for a patent for an "improved night-light reflector." Although the petition, specification, drawing and model were filed on that day, the oath to the specification purports to have been made on the 21st of December, 1859. The application was rejected on the 31st of December, 1859. The claim was amended, and the amendment, and a new oath, made January 31st, 1860, were filed March 8th, 1860. The case was examined again March 22d, 1860, a patent was ordered to issue March 24th, 1860, and it was issued April 10th, 1860. The specification states that the improvement is called "the argento-crystal dioptric illuminator," and says: "The nature of my invention consists in suspending over the burner a reflector of octagonal shape, composed of series of inclined metallic plates, each series decreasing in circumference and placed above each other, and connected by standards of wire or iron, leaving the space between them open for ventilation. The surfaces of the plates are also corrugated, so as to assist in diffusing the light" The claim, as originally applied for, was in these words. "I claim the construction of the reflector with ventilating spaces between the plates, substantially as and for the purposes set forth." The amendment referred to consisted in erasing this claim and substituting the following, which is contained in the patent, as issued: "I disclaim the arrangement of surfaces as described, considered as mere ventilators, but claim, as new, the dome-like arrangement of a system of corrugated reflectors, with alternate ventilating spaces, as set forth." A certified duplicate of the model filed by Wyberd, on such application, is part of the present case.

The application of the plaintiff was filed on the 6th of March, 1860, on a specification sworn to on the 3d of March, 1860. On suggestions made by the patent office, March 12th, 1860, amendments of the specification and drawings were filed on the 15th of March, 1860. On further suggestions made by the patent office, March 24th, 1860, amendments of the specification and claims were filed March 27th, 1860. The case was examined again March 30th, 1860, by the same examiner who, on the 22d of March, 1860, had ex

amined and passed for issue the application of Wyberd. A patent was ordered to issue to the plaintiff April 4th, 1860, and it was issued April 17th, 1860. A certified copy of the model filed by the plaintiff on such application, is part of the present case. This model exhibits and contains everything that is presented in the descriptions and claims of the reissues Nos. 3826 and 3827.

Although neither the papers filed in Wyberd's application, nor his patent, nor his filed model, represent or indicate the use of glass in his night-light reflector, yet the attempt is made to show that, in fact, he made, before the plaintiff did, reflectors substantially like the plaintiff's reflector. Wyberd's story is, that he began making daylight reflectors, lined with glass, in 1856, under a patent granted to Bernard Goetz, October 2d, 1855, for an "improvement in corrugated reflectors." The specification of this patent states, that the object of the invention is to supply dark rooms with sufficient daylight, by means of a silvered metallic reflector, with an undulated or grooved surface, placed outside of a window, at such an angle to the plane thereof, as to reflect light into the room; and that the patentee takes the metallic substance commonly used in silver plating, and known in the arts as composition, and coats or plates it with silver, and then grooves the surface of the prepared sheet, and covers it with a sheet of plain or fluted glass. Wyberd states, that, in the middle of 1856, he became associated in business with one Suter, now residing in Baltimore, and continued the reflector business at 68 Maiden Lane, New York; that their principal business was making daylight reflectors; that, shortly after, he having invented a night-light reflector, lined with glass, and having an aperture at the top, with a metal plate over it, he commenced to manufacture them in 1857; that some of those he made were circular and lined with glass, and others were oblong, four sided, and lined with glass in separate pieces; that, over the aperture in the top, especially of the large ones, he generally placed a metal plate of tin; that Suter left him early in 1857, and he continued the business alone until August 1st, 1859, making all the time such night-light reflectors as above, though, until 1859, his principal manufacture was that of daylight reflectors; that, in the latter part of 1858, he devised the improvement embraced in the patent granted to him April 10th, 1860; and that he continued to make and sell reflectors lined with glass in sections, until the latter part of 1861, part of the time in partnership with one Green, and part of the time associated with one Lauter, at which time he sold his patent

An attempt is then made to show the use in Baltimore, prior to the plaintiff's invention, of reflectors like the plaintiff's. Robert Q. Taylor, of Baltimore, testifies, that he purchased and put up two (one of which is produced as an exhibit) in his hat store at No. 5 North Calvert street, Baltimore, prior to, or early in, 1857, which are still in use there. He fixes the time, by saying that one Hindes, now dead, went into business with Suter, in Baltimore, in 1857, in making reflectors, and that the two reflectors were put up before that. Suter testifies, that he went into business with Hindes, in Baltimore, in 1857, to make

daylight reflectors under the Goetz patent; and that the firm was dissolved before the close of 1857. John L. Armiger, of Baltimore, testifies, that Hindes, who had a hat store at 100 North Gay street, Baltimore, put into that store, before 1858, two reflectors (one of which is produced as an exhibit) like those of Taylor, which are still in use there; and that such reflectors were there during the copartnership between Hindes and Suter. The son of Hindes testifies, that the reflectors were in the shop windows of his father in 1857, because they were there during his father's partnership with Suter. These affidavits do not, nor do any others produced by the defendants, undertake to show where these Baltimore reflectors were purchased, or from whom, or what was their history, or who devised them. No suggestion is made by the defendants that they are traceable to Wyberd.

In reply, the plaintiff produces a later affidavit from the same Robert Q. Taylor, in which he says that the statement he made in his former affidavit as to the time when he obtained the two reflectors, was based on his memory alone, and on certain statements made to him in reference to a business connection between Suter and Hindes; that he has now found, from an entry in his cash book, that he paid for the reflector December 6th, 1859, and has also found the bill therefor, which he produces, and which is dated New York, December 5th, 1859, and is made out as "bought of John Wyberd, agent for manufacturer of Wyberd's patent day and night light reflectors, 455 Broome street," and is receipted, for \$35 00, by the signature of John Wyberd; and that he was induced to purchase the reflectors by seeing others in the store of Kirk. The same son of Hindes, at the request of the plaintiff, testifies, that his father's two reflectors were sent from New York or Philadelphia. One McKewen, who put up, as a gas fitter, the two reflectors in Hindes store, testifies, that he understood, at the time, that they were sent from New York. Fischer Grossman testifies, that, in July or August, 1858, he entered into the employment of Wyberd, as a glazier, at 68 Maiden Lane, New York, and continued to work for him there until some time in the spring of 1859; that then Wyberd removed to Greene street near Broome street, and carried on the business there for two or three months, and then removed to 455 Broome street; that about that time one Green became connected with Wyberd in the reflector business, and afterwards one Lauter was associated in it with Wyberd at

455 Broome street; that he, Grossman, continued in the employ of Wyberd, and his associates or successors, until 1861 or 1862; that he has examined the Taylor and the Hindes Exhibits, and knows that neither Wyberd nor his associates made or sold any such reflectors prior to some time in the spring of 1859, a few weeks prior to the removal from Maiden Lane; that only a very few of such reflectors were made in Maiden Lane; that no reflectors were made or sold by Wyberd, or under his direction, prior to the spring of 1859, which were lined with glass on the inside, so far as he knows or believes; that he did all the work for glass on reflectors after he went there in the summer of 1858, and knows that no reflectors, of the description above mentioned, were made or sold at Wyberd's place prior to the spring of 1859; that, when he so went into Wyberd's employ, Richard M. Eames was in Wyberd's employ at Maiden Lane; and that, some few months after that, Charles J. Eames went into Wyberd's employ at the same place. Charles J. Eames testifies, that, from in or about December, 1858, until the fall or winter of 1860, he was connected with Wyberd in the manufacture of reflectors at 68 Maiden Lane, 59 Greene street, and 455 Broome street, in New York; that he had charge of every form of day and night light reflectors made by Wyberd; that Wyberd first commenced making night light reflectors lined with glass in panels or sections, and having an upper reflecting surface, at 68 Maiden Lane, about February or March, 1859; that Wyberd did not, until February or March, 1859, make any night light reflectors which had glass connected with them, except locomotive head light and certain concave side light reflectors; that he has examined the Hindes and Taylor Exhibits, and finds the frames or bodies of them to be constructed of sheet zinc; that he recognizes them as reflectors made by Wyberd after February or March, 1859, as he, Eames, suggested making the bodies of sheet zinc; that some few of said reflectors had been made of sheet tin as early as February or March, 1859, but not earlier; that Wyberd moved from 68 Maiden Lane to Greene street near Broome street about the 1st of May, 1859, and remained there two or three months, and then removed to 455 Broome street, when one Green became associated with him in business; that he, Eames, remained in the employment of Wyberd and Green for a few months; that, some time afterwards, one Lauter became associated in business with Wyberd at 455 Broome street; that Marvin S. Buttles solicited orders for the sale of reflectors in Baltimore and Washington in the fall of 1859, and a number of said reflectors were sent to said cities to be put up for use therein; that said exhibits appear to be some of the reflectors which were so sent to Baltimore in 1859; and that said reflectors were numbered consecutively. Marvin S. Buttles testifies, that, in the fall of 1859, Wyberd and Green, or one of them, were engaged in making and selling reflectors at 455 Broome street, and he, Buttles, made an arrangement with one or both of them, to act as agent in soliciting orders and procuring sales of said reflectors for them in Baltimore and Washington, in the fall of 1859; that, during September and October, 1859, he was engaged

in soliciting orders and making sales of said reflectors in Baltimore and Washington; that he remained in Baltimore several weeks canvassing to make sales, and visited every place making any pretension of show in the windows, where such reflectors could be advantageously used; that Kirk had two, and Robert Q. Taylor, 5 North Calvert street, had two, and other persons, on his, Buttles', solicitation, procured said reflector in the fall of 1859; and that he remembers calling on a hatter who had a store at 100 North Gay street and trying to sell him some, he then having none in his store. Walter D. Burnett testifies, that he is a brother-in-law of the plaintiff, who has been in California since July, 1873, on account of ill health; that, for the last 12 or 14 years, he has been well acquainted with the plaintiff's business; that he remembers certain suits brought by Wyberd, in this court, in 1861, on his reflector patent; that one was an action at law against the plaintiff, which was tried before Mr. Justice Nelson and a jury, in the fall of 1863; that the charge was that reflectors made in accordance with the plaintiff's patent infringed Wyberd's patent; that the jury found a verdict for the defendant on that issue; that in 1861, Wyberd brought four suits in equity, in this court, on his reflector patent, one against the plaintiff, and the other three against persons who had used reflectors made by the plaintiff; that an application for an injunction in the suit against the plaintiff, made in the fall of 1861, was denied, on the ground, mainly, of non-infringement, and none of the suits in equity were proceeded with after the verdict in the suit at law; that he, Burnett, has known Wyberd since 1861, and was acquainted with the plaintiff in 1858, and before that time, and was familiar with his operations in getting up his improvements in reflectors, which he afterwards patented; and that the plaintiff completed his invention substantially as patented, prior to December, 1858, and, prior to that time, made one or more reflectors containing said improvements, and made several more of them for sale in 1859 by the spring, and has ever since continued to make and sell them.

The affidavits on file in this court, in the suit in equity against Jacobsen and Mabie, are invoked by the defendants as papers to be used on this motion. Among those affidavits, produced on the motion for an injunction, before me, in that suit are affidavits made by the plaintiff, and by said

Burnett, and by several other persons, clearly establishing the making of his invention by the plaintiff as early as the first half of November, 1858. But, on that motion, the affidavits presented on the part of the defendants in that suit, in regard to the time that Wyberd first made reflectors in substance like the plaintiff's, went to show, that Wyberd made such reflectors in 1857. The affidavits, hereinbefore recited, which overthrow this claim on the part of Wyberd, and show that he made no such reflectors until February or March, 1859, were not presented in the case against Jacobsen and Mabie. Hence, at that time, I could not but regard the plaintiff's case, in respect to Wyberd's claim of prior invention, as not free from doubt. But, on the case, as now presented, I can entertain no such doubt.

There are various considerations which lead to this conclusion. Wyberd never attempted to obtain a patent for a night light reflector having glass. He contented himself with applying for a patent for what he had devised, in the way of a night light reflector, by December, 1858. Night light reflectors, with glass, like the plaintiff's, were a very valuable thing, and soon made their way into use, to the exclusion, of other kinds. If Wyberd was engaged, from February or March, 1859, until the latter part of 1861, in making and selling reflectors in substance like the plaintiff's, and the plaintiff was engaged during the same period, in the same city, in making and selling his reflectors, it is not to be believed that Wyberd was ignorant of that fact; or that, after April, 1860, he was ignorant of the fact that the plaintiff was making such reflectors under his patent of April 17th, 1860. If Wyberd devised the reflector in February or March, 1859, the fact that he did not, within two years thereafter, apply for a patent for it and have his application put into interference with the plaintiff's patent, indicates that he was satisfied that the plaintiff was the prior inventor. If he himself adopted the arrangement from the plaintiff's reflectors, and began to employ it in February or March, 1859, it is a matter of course that he could not obtain a patent for it. If he devised, in 1857, a reflector like the plaintiff's, it is hardly credible that he should, in the latter part of 1858, have devised what is shown in his patent of April 10th, 1860, and have applied for a patent for that, and not have applied for a patent for what he so devised in 1857. All the circumstances of the case point to the conclusion, that, when, on the 21st of December, 1858, he swore to his specification, he had not devised any arrangement such as that covered by the plaintiff's patents. In addition to this, the plaintiff has the patent, and there is the direct evidence showing priority in the plaintiff.

The English patent of Thomas Boyle, of December 27th, 1854, specification filed June 27th, 1855, is adduced to affect the novelty of the second claim of No. 3827, and to show that the arrangement, before referred to, resorted to by the defendants after the injunction was granted, of using glass with a silvery coating, covered with paint, and cutting away large parts of the metallic body of the reflector, is, in substance, to be found in the Boyle

patent. The specification of that patent says: "My improved reflectors consist of pieces of sheet or crown glass, made reflective by deposits of silver leaf on the back, and protected from air and damp by waterproof paint or pigment. This material, when properly prepared, possesses the brilliancy of glass itself, and can never tarnish. The surface of the glass may be either corrugated, figured, or plain. I apply this silvered glass to the construction of reflectors in movable pieces, of any required shape or size, and the pieces may be each framed separately or not, according to circumstances. Thus, for the ordinary street lamps, I use four sheets of reflecting glass, each sheet being framed and made to the shape and size, and fitting either over or in place of, the four top panes in the present lamps. Each sheet is fixed in such manner as to admit of its being readily removed for the purpose of cleaning. The employment of such reflectors in the street lamps would greatly increase the light, to the convenience of the public, and effect an important saving in the consumption of gas. For the ordinary internal gas burners or oil lamps, I use a suitably constructed wire or metal frame, similar to those generally used for supporting the paper reflecting shades. The outer circumference of this frame, instead of being circular in shape, is many sided, to accommodate any number of pieces of flat, reflecting glass arranged around it. The pieces of glass are cut of a triangular shape, in order to fit, without overlapping, around the frame, at the proper angle of reflection, and they may be made to fit quite close to each other, side by side, or be set apart, so as to leave a space between each two pieces, through which a portion of the light passes upwards and around the room, relieving the body of the apartment from the comparative darkness in which it is placed by the operation of the ordinary reflecting shades, while concentrating a strong light on the table or desk underneath the lamp or burner. The frame is so made that the pieces of glass may be fastened or unfastened at pleasure by a simple manipulation, such as turning a screw or pressing a spring. Thus the operation of cleaning is facilitated; and, if one glass be broken, the remainder of the reflector being still as good as ever, it only requires another glass to render it as perfect as before. * * * Figure 1 shows an elevation of a street lamp, having reflectors applied thereto, according to my invention; figure 2 is a plan thereof. The pieces of

glass used for the reflectors may be silvered or rendered reflectors by any convenient means, coating the back with water-proof paint or pigment, to which I make no claim, my invention consisting of combining several separate and, independent pieces of glass to act as a reflector, each piece of glass being so arranged, and connected or combined with the others and with a frame, that it may be separated from them and cleaned (or replaced, if broken,) separately. In street lamps, I prefer the reflectors to be exterior of the ordinary glass at top; but this is not essential, a, a, are the four pieces of glass which cover in the top of the lamp, and they may be each retained in position by any convenient means, so long as the arrangement admits of the parts, a, a, being taken out separately to be cleaned. For this purpose, the drawing shows ledges, b, b, and springs, c; but these may be varied. Figure 3 shows a section, and figure 4 a plan, of a shade for a lamp or burner, constructed with several separate pieces of glass, a, a, made reflectors by silver, and painted at back. The frame, in this arrangement, consists of two rings, e, d, with as many sides as there are pieces of glass. These rings, c, d, are connected together by rods, e, e. In the arrangement shown there are four such rods, e. The upper part of the upper ring, d, is made cylindrical, and it has a screw thread formed on the outside, to receive a ring, f, with a screw formed on the inside, by which, when the screw ring, f, is in its place, it will retain the ring, g, and thus clip the upper ends of the glass reflectors between the ring, g, and the inner ring, d, as shown, whilst the lower ends of the reflectors, a, a, will be supported by the lip or turned-up edge of the lower ring, c. * * * What I claim is, the manufacture of reflectors for artificial light, by combining in suitable frames separate pieces of glass readily capable of being separated from each other and from the frames, as described.”

It is quite apparent that the Boyle patent does not contain what is covered by the first claim of No. 3826, for there is, in the Boyle patent, no upper reflecting surface.

The second claim of No. 3827 claims “the combination with the metallic body of a reflector, of a glass covering or lining therefor, applied in sections or panels, substantially as and for the purposes described.” It does not claim the use of glass in sections, in any and all reflectors. Boyle’s patent shows glass in sections, in a reflector. But the plaintiff claims a glass covering or lining for the metallic body of a reflector, applied in sections or panels, and combined with such metallic body, substantially as and for the purposes described. This means, the metallic body of such a reflector as he describes and shows in his drawings—a reflector in which the illuminating rays are thrown down beneath the flame or source from which they proceed; and which has a metallic body; and in which such metallic body is lined or covered on the inside with glass, so that there is no intercepting of any of the rays of light by any part of the metallic body, in contradistinction to having part of the metallic body inside of the glass, so that such intercepting of rays of light is produced; and which is capable of having the glass lining to the metallic body applied by moulding or blowing the glass, if it be not attached in sections or panels; and

which is manipulated and handled as a unit, and is supported and kept in position from above, and not from below.

Neither one of the two arrangements suggested by Boyle has a metallic body to the reflector as the plaintiff's reflector has, or as the defendants' form of reflector had, even after the defendants had cut away large parts of the metallic body; nor is either one of them a reflector which is kept in position from above, and not from below. As neither one of them has a metallic body, so it has not a metallic body lined or covered with glass, or capable of being lined or covered with glass. The arrangement, suggested by Boyle, of what he calls a shade, in addition to not having the plaintiff's metallic body to the reflector, has the rods which connect its two rings inside of the glass, in a position to intercept the rays of light. Moreover, the street-lamp arrangement of Boyle cannot, as a reflector, be manipulated and handled as a unit. As a four-sided whole, it is rigidly fixed to the top of the lamp. It is entirely clear, I think, that nothing in Boyle's patent anticipates the second claim of No. 3827.

The defendants also bring up against the novelty of both of the claims in question a patent granted to John C. Fletcher, March 30th, 1836, and a patent granted to the same person July 12th, 1838.

Fletcher's patent of 1836 is for an "improvement in the double-reflecting lamp." It says: "The receptacle for the oil is made in the usual manner, of a spherical or polygonal concave figure, having any convenient number of burners placed in an inclined position, bringing the light to the apex, with chains for suspending it, and a glass tube or chimney, in the manner of Argand's lamp. My improvement consists in providing a receiver or trough for catching the overflowing oil, which, in the common lamp, usually falls on the floor or on the clothing of the company. This receiver is of the same figure as the lower edge of the lamp, and the lamp is suspended in it. The suspending chains are attached to the trough by brackets. Another improvement consists in arranging two sets of trapezoidal reflectors in a spherical or polygonal concave shape, one placed above the light, for reflecting it over the room, the other below it, for concentrating the light. The reflectors above the light are placed in a metallic frame, having an opening in the centre for the chimney, and suspended in the chains with the apex inverted or towards

the light. The reflectors below the light are placed in the concave or inner side of the lamp." In this patent of Fletcher's, the illuminating rays are not thrown down below the source from which they proceed, in the sense of the first claim of No. 3826. The source of the rays is not below the lower reflecting surface, as in the plaintiff's reflector. The rays are not returned downward from the lower reflecting surface to their source, then passing on still further downward beyond such source, as in the plaintiff's reflector. This is an essential point in such first claim. In this patent of Fletcher's, no space is provided between the upper and lower reflecting surfaces for the passage of air and for ventilation. No air that passes upward through the interior of the lower reflecting surface and in contact with the flame, passes out under the upper reflecting surface. It is all carried upward in the glass chimney which passes into the opening in the centre of the upper reflecting surface. This feature of a glass chimney in this Fletcher patent makes it impossible for it to anticipate the first claim of No. 3826.

Under the construction hereinbefore defined as the proper one to be given to the second claim of No. 3827, that claim is not found in Fletcher's patent of 1836, because, in that patent the source of the rays is not below the lower reflecting surface.

Fletcher's patent of 1838 is for an "improvement in lamps." It describes a lamp which, it says, is arranged in every respect, like the one in his patent of 1836, except that it has an oil fountain on the top of the lamp, above the upper reflecting surface, with conductors passing from it to a receptacle at the bottom of the lamp, and that the conductors enable the chains extending from the bottom of the lamp to the frame of the upper reflecting surface to be dispensed with. Therefore, nothing more need be said in regard to this patent of 1838.

It is urged for the defendants, that, on the assumption that a reflector existed before, embodying all the features specified in the first claim of No. 3826, except the one of a glass lining to the reflecting surface or surfaces, such first claim presents no patentable feature of novelty. This position cannot be admitted, for, the employment of the glass, in the entire arrangement, being new, is certainly useful, both in increasing the reflection of the light and in preventing the reflecting surface behind the glass from being scratched or tarnished. Being new and useful, the entire arrangement in the first claim is patentable. All the features embodied in it have a mutual relation and interdependence which make them patentable, as a whole.

Much criticism is made on the alleged fact that Jacobsen and Mabie, on the trial of the suit at law, after the evidence was in, substantially ceased their resistance. They might well have done so, with no defence on the question of infringement, and with no more available materials on the question of novelty than the Fletcher patents, and the Boyle patent, and Wyberd's alleged prior invention, and the McKenzie reflector, which latter I have had before me in several of the cases, and which amounted to nothing.

The plaintiff commenced making daylight reflectors in March, 1857. He first gave his attention in May, 1858, to the idea of improvements in night light reflectors, which should include a glass lining, and the use of gas, and embody the other principal features now found in his patents. He embodied those improvements and features in a practical working reflector in the first half of November, 1858. He began immediately to make and sell to the public like reflectors. Following the granting of his patent, he went largely into the business, and has, in the succeeding years, carried it on successfully, so far as introducing his reflectors into general use is concerned, and has made it his only business. He has asserted his exclusive right in every reasonable method, and, since the reissues of his patent were granted, he has given no rest to those who were infringing his rights. It is not until since the reissues that any infringements seem to have seriously interfered with his business. The improvements embodied in his patents enable the brilliant light of gas to be used in its most effective way to illuminate objects underneath the source of light. The practical results of those improvements are familiar to every one, and, on the evidence before me, are due to the inventive genius and energy and perseverance of the plaintiff. The defendants have infringed with full knowledge of the plaintiff patents, and of the claims asserted by him thereunder, and he is entitled to be protected by an injunction. The changes he made from previous arrangements may have been small to appearance, but they were such changes as produced practical success in what was before substantially useless. The Fletcher arrangement was worthless until the source of the rays of light was placed below the lower reflecting surface. The Boyle arrangements amounted to nothing, as a practical accomplishment of the purposes set forth by the plaintiff in his patents. The defendants accomplish the purposes so set forth in respect to the first claim of No. 3826, and in the way specified in said claim, no less by modifying, as they have done, the color of the upper reflecting surface, than if they had not so modified it. So, too, they accomplish the purposes so set forth in respect to that claim, and in respect to the second claim of No. 3827, and in the way specified in said claims, notwithstanding the modifications they have made in regard to the reflecting surface and the metallic body. Notwithstanding, such modifications, the metallic

body encloses, supports and protects the internal glass lining which is applied to such metallic body, and the source of the rays is below the lower reflecting surface, and no part of the metallic body intercepts any of such rays, and the reflector is handled as a unit, and is supported wholly from above, and the glass lining is applied in sections. It makes no difference, in regard to these particulars, whether the reflecting surface behind the glass is made a thin reflecting film applied to the back of the glass, so as to make it possible, in places, to remove the metal of the metallic body, or whether such reflecting surface is the inner surface of the metallic body. In each case the glass performs the offices of increasing the reflection and protecting the reflecting surface from being scratched or tarnished. In each case the metallic body, aside from reflecting, performs the same functions of enclosing, supporting and protecting, in the same way, the internal glass lining. A silvery coating, applied to glass, as a reflecting surface, was a known equivalent for the bright surface of a metallic body behind glass, as a reflecting surface, the reflection in each case being made through the glass; and there is nothing in the plaintiff's patents which restricts him to the use of the latter, as distinguished from the former.

I have attentively considered all the questions involved in this motion. In doing this, I have examined all the papers now to be found on the files of this court, in all the suits brought therein on the plaintiff's patents, for the purpose of satisfying myself that I have allowed no point to escape my notice. As against the prior patents referred to, the strength imparted to the plaintiff's patents, by the fact that his reissues of 1870 were granted, notwithstanding the existence of such prior patents, is sustained by a review of the questions involved, on principle. As against Wyberd's alleged prior invention, the result, as to the Baltimore matter, shows how little to be relied on is *ex parte* testimony which is brought as to such invention. I have said nothing more as to the alleged prior invention of Doyle, because, although it was referred to, it was not pressed on this motion, and I now allude to it only as a part of the history of the litigation on the plaintiff's patents, for the purpose of saying, that, although, heretofore, in some of the cases, it occupied a large share of my time and attention, and although Doyle may have come to believe in the existence of the alleged facts to which he testified, and although others may honestly have been induced to sustain him, I came to the undoubting conclusion, On the evidence, that such alleged facts had no foundation in truth.

My observations have been extended to great length, but I deemed nothing less to be properly commensurate with the importance to the parties, of the questions involved, and the earnestness and ability with which the views on the part of the defendants were urged.

The motion to dissolve the injunction is denied.

¹ [Reported by Hon. Samuel Blatchford, District Judge: reprinted in 1 Ban. & A.1; and here republished by permission. Merw. Pat. Inv. 142, contains only a partial report.]

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