

Case No. 1,063.
[3 App. Com'r Pat 26a]

EX PARTE BARSTOW.

Circuit Court, District of Columbia.

March 3, 1860.

PATENTS FOR INVENTIONS—ANTICIPATION—COOKING STOVES.

[An improvement in cooking stoves, consisting in a chamber interposed between the fire box and the flues, and formed of two parallel plates, which extend clear to the top plate of the stove, except at the corners, where passages conduct the fire to the oven flues, the advantage claimed for which is economy of fuel, is not anticipated by an improvement covering a similar construction, save that the plates of the central chamber do not extend to the top plate of the stove, and that there was a central passage to the oven flues, the object of which is to utilize a cooking stove as a heater, by conducting the current of air passing through and heated by this chamber to apartments above, the oven being adapted to be converted into an auxiliary air chamber for heating purposes.]

[Appeal from the commissioner of patents.]

[Application by A. C. Barstow for letters patent for an improvement in stoves. The application was denied. Applicant appeals Reversed.]

MORSELL, Circuit Judge. The appellant states his claim thus: "What I claim as my invention, and desire to have secured to me by letters patent, is the double plate extending from the bottom to the top plate, and throughout the width of the stove, forming a partition chamber, so arranged as to separate the fire chambers from the flues when said plate or chamber is provided at the top or thereabouts and bottom or thereabouts with apertures or openings, respectively for the admission to and evacuation from said chamber of external air, whereby a continuous and rapid circulation of fresh air is necessarily created and maintained through and by the heat of the chamber for the purposes herein specified; in combination, with the flue passages near the top and at either end of said partition chamber, by which three or more boiler apertures can be used on the front of a stove, and over a comparatively small fire, and the heat be applied equally to each, and by which also, when the heat has passed from the fire chamber, it is first applied to the ends of the oven where it is most needed.

The commissioner, in his letter to the judge of the 12th of December, 1859, among other things, says: "The issue between the office and the applicant respects the novelty of the invention claimed;" and it is only deemed necessary to refer to the several letters of rejection and to the reports of the board of appeal for the ground of the official action, in so far as they are involved by the reasons of appeal.

The first of those documents referred to is that of the board of examiners to the acting commissioner, and by him adopted as of the 18th March, 1859. It states: "Several references are given by the examiner in his treatment of this case, but we see no necessity of alluding more particularly to any of them, except the patent granted to R. G. Cochran

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in 1840, which appears to us to embrace the precise conditions of Barstow's claim. Like Barstow's, Cochran's stove is provided with a chamber interposed between the fire box, and the forward flue, in the former, as in the latter this chamber extends from the bottom to the top plate of the stove, leaving on either hand only sufficient spaces for the passage over said chamber of the products of combustion, and, in the one as in the other, this chamber is provided with apertures or openings at its bottom and top for the direct ingress and egress of atmospheric air. In short, these chambers are precisely alike in construction; they are located in the same relative position; they operate precisely alike, and produce the same results. We cannot discover the slightest reason for impugning the action of the examiner, and it is accordingly recommended that his decision be affirmed, and a patent finally refused; this report is confirmed, and the application for a patent rejected by the acting commissioner, March 18, 1859." The next one is dated November 9, 1859, and states: "This is a renewal of the application filed by the same party, June 25, 1859, and which was rejected by the acting commissioner on appeal on the 15th of March, 1859. The amended claim is, however, nearly the same as that originally presented, the only difference being that in this, one of the conditions is that the heat, as it passes from the fire chamber, is applied first to the ends of the oven; and, after a careful review of the opinion formerly expressed by us, we can perceive no reason for changing its tenor. Cochran's stove, patented in 1840, a reference

given on the rejection of the first application, but not in the rejection of this, is so nearly like Barstow's in respect of the devices claimed, including the feature in which the first and second claims differ, that they may be pronounced to be identical. A comparison of the model shows this conclusively. We cannot say the same of the reference now relied on by the examiner, viz. the rejected application of Thomas. We recommend that the patent prayed for be denied." This was confirmed, and patent refused by the commissioner on the 10th November, 1859.

From this decision there were five reasons of appeal filed. The first is a general reason that Barstow had complied with all the previous requirements of the statute. The others are as to the novelty, and particularly stating that the commissioner erred in deciding that his invention was identical with that of R. G. Cochran, patented October 10, 1840. Such was the case when all the original papers were laid before me by the commissioner for trial according to notice duly given, at which time and place Barstow, the appellant, appeared by his attorney, and filed his argument in writing and the case was submitted. The commissioner, in his last and final report, seems to rely on the invention of Cochran, patented in 1840, to show Barstow's claim to be nothing more than an analogous use. He says that it "is so nearly like Barstow's in respect to the devices claimed, including the feature, in which the first and second claims differ, that they may be pronounced to be identical. A comparison of the models shows this conclusively." The model and drawings ought no doubt faithfully and truly to represent the invention as claimed, but whether they do so or not must be tested by a comparison with the claim as described in the specification. That alone can be considered as conclusive.

The leading purpose and object of the appellant appears to be the economy of fuel to be used in the cooking stove, which he supposes may be reduced to a third less than what is now required by stoves according to the ordinary construction. This and other minor important advantages may be effected by peculiar arrangements and alterations in the construction as particularly stated and set forth in his specification, drawings and model. The principal means consists in suitably adapted and regulated drafts, for which purpose, as stated by him, instead of the mode heretofore used, he states the nature of his invention to consist in forming the partition which separates the fire place from the flues of a stove of a double plate or chamber, provided at the bottom and top with apertures or openings, respectively, for the admission to and evacuation from the stove of external air, whereby a continuous and rapid circulation of fresh air is necessarily created and maintained, through and by the head of the said chamber. By this means the plate or chamber and the parts contiguous thereto are effectually preserved from destruction or deterioration, and the use of a back plate extending to the top plate of the stove, without leaving a central space, between the said back and top plates, partitioned so that the exit flues of the fire chamber can be formed at the extreme ends of the same, thus admitting the apertures for

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boilers over the fire, and conducting the heat to the apertures at the ends of the stoves in the same degree as to those in the center, before it can pass into the flues for heating the ovens, etc. By this arrangement in a stove of a double fire plate, extending from the bottom to the top plate throughout its whole width, and having openings at the top and bottom for the direct admission and evacuation of external air in combination with the flue passages near the top of said plate at either end thereof, he is enabled to provide the top plate in front of the partition chamber with three boiler apertures arranged in one row laterally. This in itself constitutes a novel and important feature, as in stoves of a different construction three boiler holes could not be used with advantage without a very long fire chamber, which necessitates the burning of a very large quantity of fuel.

Cochran's object and design, by his improvement in cooking stoves, appears to have been, according to what he himself states in his specifications, to make certain improvements in the manner of constructing a cooking stove by which it should be adapted to the heating of air and to the conveyance of the air so heated wherever it may be wanted, and for the warming of apartments in dwellings not heretofore practiced. He says that his improvement may be applied to stoves of various forms, and that he does not therefore intend to limit it to the one of the particular construction which he had represented in the accompanying drawing. His principal mode or manner is an air chest or hollow box situated between the fire chamber and the front oven flue, which flue descends in front of the ovens, extends under it, and passes up the back to the exit or smoke pipe, there being a flue also over the oven and valves operating, so as to govern and regulate the draft in the ordinary mode. C is an opening leading into the air chest to which opening is to be attached to conduct air from without the apartment into the air chest. In the drawing the opening C is represented at the side of the stove, but it will in most cases be found most convenient to make it through the bottom. D, D, is a tube or trunk for conveying the heated air from the air chest to the pipe or pipes by which it is to be distributed. Fig. 2 is a view of the top plate of the stove, with the holes for cooking utensils, E, the collar to receive the stovepipe. F is a heated air tube, shown also in Fig. 1. This tube is represented as rising from the trunk or tube, D, D, within the stovepipe, along which it may be continued to any required distance, and pass thence to any apartment to be heated. If desired, the heated air may be conveyed directly

from the trunk, D, as through a pipe, G, which is supposed to feed from the opening G Fig. 1. In combination with the afore going arrangements of the air chest and its appurtenances for heating air, I constitutes the oven, a secondary air chest to be so employed when not used for the purpose of baking, &c He further says: "What I claim as constituting my invention, and desire to secure by letters patent, is the manner in which I have combined and arranged the air chest for heating air with a cooking stove, rendering the oven or ovens of such stoves auxiliary thereto, by converting them into air heating chambers, and connecting them with the air chamber first named, in the manner and for the purpose herein set forth."

Having thus fully stated the Inventions of the respective parties, A. C. Barstow, and the reference to Cochran's, by a careful examination and comparison I am satisfied there are several substantial differences between the claims of Barstow on this application and that of Cochran, patented in 1840.

First, the object and purpose of the respective parties. Barstow's object is to effect the economy of fuel by a saving of considerably less than that found necessary for the purpose of common cooking stoves by peculiar contrivances and arrangements in connection with the regulation and direction of the draft. For this end the construction is materially different. Barstow's back plate, as described, is joined to the top plate throughout its entire length and breadth, with the exception of two flues in each of the corners, thereby preventing the direct escape of the heat, which becomes continuous, and (after having heated the center) is directed to the corners, which are also sufficiently heated, &c.

2nd. Cochran does not pretend to aim at any such end; his particular object is not the saving of fuel, nor does his contrivance show any such purpose. In his own language he says: "The nature of his improvements, as shown, is the manner in which he has combined and arranged his air chest (which he fixes at the side of his stove) for heating air, &c, rendering the oven or ovens auxiliary, &c. He says his draught is regulated according to the ordinary mode, and what is that? The hollow back to the fire chamber stops short at the usual height in cooking stoves generally, so as to establish a quick and straight draught from the fire chamber to the oven flue in the rear, over the top of the back plate, nearly throughout its whole width. There are other material advantages accomplished by Barstow's peculiar arrangement and contrivances, as before stated, which need not be repeated.

For the foregoing reasons, I think the commissioner erred in his decision, and that the same ought to be annulled and reversed, and a patent is hereby directed to be issued to the said Barstow for his improved invention, as prayed.