

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RONALD J. LOAR

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Appeal No. 2006-1308  
Application No. 10/269,974  
Technology Center 3700

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ON BRIEF

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Before CRAWFORD, BAHR and LEVY, *Administrative Patent Judges*.  
BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 1-20.

We REVERSE.

## BACKGROUND

The appellant's invention relates to a fire-rated, self-closing vent for soffits and walls connecting the exterior of a building to its interior (specification, p. 2). The vent comprises a screen surrounded by a peripheral frame, wherein the screen comprises cells coated with an intumescent material (i.e., a material that swells or expands when subjected to excessive heat). Independent claim 1 is illustrative of the claimed invention and reads as follows:

1. A self-closing venting system for preventing an external fire from entering a building through external vents, said self-closing venting system comprising in combination:
  - an external wall of a building, said external wall including a vent opening therethrough;
  - a self-closing vent, said self-closing vent comprising:
    - a frame, said frame defining a central opening;
    - a screen, said screen being contained within said frame and covering said central opening while allowing free flow of air therethrough; and
    - the walls of said screen being coated with a layer of an intumescent material which closes said screen when subjected to the heat produced by an external fire; and
    - said self-closing vent being mounted on said external wall to cover said vent opening.

The examiner relies upon the following as evidence of unpatentability:

Lamb	2,279,791	Apr. 14, 1942
Thwaites	4,093,818	Jun. 6, 1978
Urdaneta	4,722,158	Feb. 2, 1988

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The following rejections are before us for review.

Claims 1-7, 10-15 and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lamb in view of Thwaites.

Claims 8, 9, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lamb in view of Thwaites and further in view of Urdaneta.

Rather than reiterate in their entirety the conflicting viewpoints advanced by the examiner and the appellant regarding this appeal, we make reference to the examiner's answer (mailed October 4, 2005) for the examiner's complete reasoning in support of the rejections and to the appellant's brief (filed September 1, 2005) and reply brief (filed November 15, 2005) for the appellant's arguments thereagainst.

## OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art, and to the respective positions articulated by the appellant and the examiner. For the reasons that follow, we conclude that the applied prior art is not sufficient to establish a *prima facie* case of obviousness of the subject matter recited in appellant's claims and that, accordingly, the rejections cannot be sustained.

Each of appellant's independent claims 1, 10 and 19 requires a self-closing vent including a screen coated with an intumescent material that closes the screen when subjected to the heat produced by an external fire, the vent being mounted on

an external wall of a building. In this regard, we note that, while the preamble of claim 10 recites a “self-closing vent,” the claim recites the self-closing vent “being mounted on said external wall” of a building and is thus directed to a self-closing vent mounted on an external wall of a building (i.e., the combination of a building with an external wall and a self-closing vent mounted on said external wall) and not simply to a self-closing vent.

The dispositive issue in this appeal is whether the primary reference Lamb teaches or suggests mounting of the fire screen disclosed therein on an external wall of a building. Thwaites is simply relied upon by the examiner for its teaching of the use of intumescent-coated structural honeycomb material in fire-protective ducting<sup>1</sup> and a screen with a substantially flat peripheral flange (answer, pp. 3-4). Urdaneta is relied upon by the examiner solely for its teaching of frames with decorative figures (answer, p. 5).

Lamb’s invention “relates to fire prevention devices generally and more particularly to fire screens or dampers of the character employed for preventing the transmission of conflagration through air ducts or ventilating openings from one part of a building structure to another” (p. 1, col. 1, ll. 1-6). Lamb goes on to explain that the increasing popularity of air conditioning apparatus has increased the normal fire hazards by increasing the number of ducts or passages leading from

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<sup>1</sup> While Lamb does not use the term “intumescent,” the coating on the mesh material of Lamb’s fire screen is described as being “adapted upon subjection to excessive temperatures to expand and close the screen openings, thereby converting the reticulated screen into a solid or imperforate, non-inflammable fire screen” (p. 1, col. 2, ll. 7-11) and is thus in fact “intumescent” material.

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one portion of a building to another and that, upon occurrence of a conflagration, the fire is readily transmitted through such ducts (p. 1, col. 1, ll. 7-24). According to Lamb, the primary purpose of his invention

is to provide a screen which may be located at any desired position in a duct or in a wall opening and which being of reticulated or foraminous construction will permit a substantially unobstructed flow of air at normal temperatures but which when subjected to temperatures slightly above 212° F. will become heat activated so as to automatically become converted into an imperforate, non-flammable screen which will positively prohibit the passage of flame or excessively hot air or the transmission of conflagration [p. 1, col. 1, l. 46 to col. 2, l. 2].

Lamb (p. 2, col. 2, ll. 16-27) also discloses:

In Fig. 4 a screen designated 24 of the character heretofore described is shown as interposed in a ventilating opening in a fire wall 25. The use of a screen in such a wall permits the ventilation of spaces or compartments such as paint spray rooms, for instance, where the fire hazard is great without reducing the margin of safety. Upon the occurrence of fire either inside or outside the space, the normally reticulated screen will be heat activated into the formation of an impervious, non-inflammable screen which will preclude the passage of flame or excessively hot air therethrough.

While Lamb does discuss providing “a screen which may be located at any desired position in a duct or in a wall opening” (p. 1, col. 1, ll. 47-49), it is clear from the above that Lamb is concerned with preventing the spread of fire from one part of a building structure to another. One skilled in the art would not have inferred from Lamb any hint of a concern about stopping the spread of fire from outside the building to inside the building or vice-versa and, thus, would not have found suggestion to provide a fire screen of the type disclosed by Lamb in an external wall of a building.

Relying on the disclosure of Lamb quoted above with regard to the use of a fire screen in a fire wall to permit the ventilation of spaces or compartments such as paint spray rooms, the examiner determines that “it is reasonable to interpret the vented walls of the paint spray room disclosed by Lamb as ‘external walls of a building’” since contaminated air from paint spray rooms is typically vented from the internal space of the room through the walls of the room and to the open air rather than into an adjacent room (answer, p. 6). The examiner’s determination is not supported by Lamb. First, Lamb describes the wall in which the screen 24 is mounted as a “fire wall 25.” A fire wall is typically understood to be “a fire proof wall to prevent the spread of fire, as from one room or compartment to the next” (Webster's New World Dictionary, Second College Edition (Simon & Schuster, Inc. 1984)). Consistent with the teachings of Lamb, one skilled in the art would understand the “fire wall” referred to by Lamb to be a fire proof internal wall for prevention of the spread of fire from one part of a building to another, as between a

paint spray room and other rooms of a building. While the examiner may indeed be correct that contaminated air from rooms such as paint spray rooms is typically vented to the exterior of the building rather than into other rooms of the building, this does not necessitate the conclusion drawn by the examiner that the fire wall 25 in which Lamb's fire screen 24 is mounted must be an external wall of the building. The venting of contaminated air could, for example, be effected by ducting leading from an opening, covered by a fire screen 24, in an internal "fire wall" of a paint spray room, through other portions of the building to a vent in either the roof or an external wall of the building.

The examiner's position, as stated on page 5 of the answer, that "a room within a larger structure can reasonably be interpreted to be a 'building' ..., each wall being an 'external' wall since the outer surface of each wall would be external to the internal space of the room (building)" is unsound. The meanings of "building" and "external wall" are well established and would not be understood to be met by a room and internal walls within a building.

Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967). It appears from the above that the examiner's determination that the subject matter of appellant's claims, and in particular the

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placement of the self-closing vent or fire screen on an external wall of a building, stems in part from speculation or hindsight gained impermissibly from appellant's specification. It follows that the rejections cannot be sustained.

## CONCLUSION

To summarize, the decision of the examiner to reject claims 1-20 is REVERSED.

**REVERSED**

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