

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

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES BUSH, SR.

Appeal No. 2006-1848
Application No. 10/352,360
Technology Center 3600

ON BRIEF

Before NAPPI, HORNER, and FETTING, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the examiner's final rejections of claims 6-9 and 11-18, all of the claims pending in the application. Claims 1-5 and 10 have been canceled.

We affirm the Examiner's rejections.

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BACKGROUND

The appellant's invention relates to a hauling trailer (100) including a front wall (110), a rear wall (112), and a side wall (114), extending upwardly from a floor (120). A remaining open side runs along the length of the trailer. A set of hinged, bi-fold doors (130, 132, 134, 136) are used to close the open side. The doors are cross-braced and covered with mesh and/or steel grating(s) and or canvas. Braces (160, 162, 164) are used along the upper edges of the panel of the doors to maintain the edges in straight alignment when the panels are closed. In one embodiment, the doors are tri-fold doors. In yet another embodiment, the floor of the trailer includes a central deeper portion. Independent claims 6 and 11 are representative of the subject matter on appeal, and a copy of these claims can be found in the appendix to the appellant's brief.

The examiner relies upon the following as evidence of unpatentability:

Lutkenhouse (Lutkenhouse)	4,092,039	May 30, 1978
Elliott (Elliott)	4,856,843	Aug. 15, 1989
Carter <i>et al.</i> (Carter)	5,599,058	Feb. 4, 1997
Anderson (Anderson)	6,325,438	Dec. 4, 2001

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The following rejections are before us for review:

1. The examiner has rejected claims 6, 7, 12, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott.
2. The examiner has rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott, as applied to claim 6, and further in view of Anderson.
3. The examiner has rejected claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott, as applied to claim 8, and further in view of Anderson.
4. The examiner has rejected claims 11, 13, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott and Lutkenhouse.
5. The examiner has rejected claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott and Lutkenhouse, as applied to claim 11, and further in view of Anderson.
6. The examiner has rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Carter in view of Elliott and Lutkenhouse, as applied to claim 14, and further in view of Anderson.

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Rather than reiterate in detail the conflicting viewpoints advanced by the examiner and the appellant regarding this appeal, we make reference to the examiner's answer (mailed March 24, 2006) for the examiner's complete reasoning in support of the rejection and to the appellant's brief (filed August 4, 2005) and reply brief (filed October 26, 2005) for the appellant's arguments.

OPINION

In reaching our decision in this appeal, we have carefully considered the appellant's specification and claims, the applied prior art, and the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations that follow. It is our view that, after consideration of the record before us, the claimed invention would have been obvious to one of ordinary skill at the time of the invention based on the evidence relied upon by the examiner.

I. Obviousness Rejection

A. Independent Claim 6

In the rejection of independent claim 6, the examiner has determined that Carter discloses a trailer having a floor (16) and rigid, non-opening walls (20, 24, 28). The trailer has wheels (14) beneath the floor (16), and the walls have solid lower portions (32). (Carter,

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column 3, lines 36-38). The examiner admits that Carter does not disclose the claimed doors.

The examiner further finds that Elliott teaches the use of a pair of side-by-side, bi-fold doors (10) to close a loading side of a vehicle. The doors are shown to have an outer frame and a covering material. (Elliott, Figure 1). The examiner asserts that the covering material would be inherently flexible due to the relatively thin thickness of the material when compared to its other dimensions.

The examiner found that it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a pair of side-by-side, bi-fold doors, as taught by Elliott, to the open side of the trailer of Carter to prevent debris from falling from the trailer while allowing complete access to the open side during loading and unloading. (Examiner's Answer, p. 3). Specifically, with regard to the motivation to combine Carter and Elliott, the examiner states that Elliott teaches that the more enclosed a load is in a trailer, the safer it is to transport the load by reducing spills and upset due to shifting loads. (Elliott, column 2, lines 38-41). Carter discloses that most debris falling from the open side of its trailer will fall on the berm of the roadway. (Carter, column 5, lines 3-6). The examiner recognizes that allowing debris to fall from the trailer is not acceptable in all situations. As such, the examiner finds,

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It is clear that to increase safety of the trailer of Carter at al., by reducing spills or falling debris from the open side, one can add bi-fold doors as taught by Elliott. This combination will result in a trailer that is easy to load while providing increased safety to those around the trailer.

(Examiner's Answer, p. 6).

The appellant contends that the examiner is improperly speculating as to how those of skill in the art might find it desirable to combine the references to prevent debris from falling from the trailer and that such speculation does not establish *prima facie* obviousness. (Appellant's Brief, p. 3). The appellant argues that that the examiner has not supported his position with objective teachings in the prior art or knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. (Appellant's Brief, p. 3). The appellant further argues that

Not only is there a lack of any suggestion or motivation to combine Carter and Elliott, Carter actually considers issues associated with falling debris, and has designed his trailer "with an open side facing the edge of the road so that any debris falling from the open side will fall on the berm of the road." (See column 1, lines 13-15 and column 2,

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lines 32-34). Moreover, Elliott has a *closed top*, such that even if Carter and Elliott were to be combined, the closed top would result, which would also preclude obviousness.

(Appellant's Brief, p. 4) (emphasis in original).

We disagree with the Appellant's position.

In order to determine whether a *prima facie* case of obviousness has been established, we considered the three factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), *viz.*, (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. We also considered the requirement, as recently re-stated in *In re Kahn*, 441 F.3d 977, 78 USPQ2d 1329 (Fed. Cir. 2006), for a showing of a "teaching, suggestion, or motivation" to modify or combine the prior art teaching. As to this test, the court explained,

The 'motivation-suggestion-teaching' test asks not merely what the references disclose, but whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims.... From this it may be determined whether the overall disclosures, teachings, and suggestions of the prior art, and the level of

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skill in the art – *i.e.*, the understandings and knowledge of persons having ordinary skill in the art at the time of the invention – support the legal conclusion of obviousness.

441 F.3d at 988, 78 USPQ2d at 1337 (internal citations omitted). It is not just the explicit teachings of the art itself, but also the understandings and knowledge of persons having ordinary skill in the art, that play a role in applying the motivation-suggestion-teaching test.

The Federal Circuit has repeatedly recognized that to establish a *prima facie* case of obviousness, the references being combined do not need to explicitly suggest combining their teachings. See e.g., *In re Kahn*, 441 F.3d at 987-88, 78 USPQ2d at 1336 (“the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references”); and *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (“for the purpose of combining references, those references need not explicitly suggest combining teachings”). The court recently noted,

An explicit teaching that identifies and selects elements from different sources and states that they should be combined in the same way as in the invention at issue, is rarely found in the prior art. As precedent illustrates, many factors are relevant to the

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motivation-to-combine aspect of the obviousness inquiry, such as the field of the specific invention, the subject matter of the references, the extent to which they are in the same or related fields of technology, the nature of the advance made by the applicant, and the maturity and congestion of the field.

In re Johnston, 435 F.3d 1381, 1385, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006).

For the reasons discussed below, we find that a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims.

We first turn to the general problem confronted by the inventor. “In considering motivation in the obviousness analysis, the problem examined is not the specific problem solved by the invention but the general problem that confronted the inventor before the invention was made. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (citations omitted). In this case, the general problem confronting the inventor was to overcome disadvantages of conventional flatbed trailers for hauling waste and scrap. Specifically, the inventor recognized that conventional flatbed trailers have the disadvantage of allowing debris to land on the highway during transit.

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As the inventor also noted, a recently enacted U.S. law requires such haulers to have all four sides enclosed. Since these types of haulers are typically loaded using a forklift, another problem confronting the inventor was to make the interior of the trailer easy to access such that it could be loaded using a forklift.

We next turn to an examination of the scope and content of the prior art and the differences between the prior art and the claims. Carter is directed to the exact same type of transport trailer as the appellant's invention, *viz.*, a trailer for hauling stacked, crushed vehicles. Carter recognizes the problems with using flatbed trailers for this type of hauling. For example, Carter recognizes that flatbed trailers have no sides so that parts from flattened vehicles might fall off the trailer and leave dangerous debris on the highway. (Carter, column 1, lines 37-40).

Carter solves these problems by adding a front wall (24), a rear wall (26), and one side wall (28) to the trailer (10). The other side (30) of the trailer is left open to allow for ease of loading the flattened vehicles with the forklift. One skilled in the art at the time of the invention confronted with the problems discussed above, would look to Carter and see a partial solution to the disadvantages of a flatbed trailer used to transport this type of bulky cargo. However, Carter did

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not solve the problem confronting the inventor of a hauler having all four sides enclosed, as required by law.

Elliott is directed to a trailer (2) having all four sides enclosed and used to haul cargo, where the cargo is loaded using forklifts. (Elliott, Figure 1). The sides of the enclosed trailer have bi-fold doors (10) that allow for easy loading and unloading from either side. (Elliott, column 2, lines 1-10 and column 3, lines 20-31) (“[W]hen bi-fold doors 10 along one side are open, they completely expose the interior of trailer body 2 for purposes of loading.”). Elliott teaches that by completely enclosing the load during transportation, the safety of transportation is significantly increased by reducing spills and upset due to shifting loads. (Elliott, column 2, lines 38-41).

Based on our review of the prior art, we find that one skilled in the art at the time of the invention would have looked to these references to solve the general problem facing the inventor. We further find that there is sufficient motivation to combine these references to render the claimed invention obvious.

The advantages of using bi-fold doors on a side of a trailer for ease of loading and unloading and for preventing debris from being deposited on the highway, is taught in Elliott. It is our opinion that it would have been obvious to carry forward this concept to improve the

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three-sided trailer of Carter and thus meet the legal requirements of having a trailer enclosed on all four sides.

Carter discloses all of the elements of claim 6, except for an explicit disclosure of “one or more articulating doors hinged to each side edge of each wall, allowing the open side to be closed off for transport.” Elliott teaches using bi-fold doors to have a trailer enclosed on all four sides, such that the cargo remains secure even if it shifts during transit.

A person of ordinary skill in the art at the time of the invention and confronted with the general problem faced by the appellant would have been motivated to apply the teaching of bi-fold doors disclosed in Elliott to the trailer of Carter to solve the problem of a fully-enclosed trailer having ease of access for loading and unloading through the side of the trailer. We thus conclude that based on these teachings of the prior art, a person having ordinary skill in the art at the time of the invention would have viewed the subject matter of claim 6 as a whole to have been obvious in view of the prior art.

We disagree with the appellant that by combining Carter and Elliott the resulting trailer would necessarily have a roof. One skilled in the art would recognize that Elliott’s teaching of bi-fold doors is for the purpose of providing access for loading and unloading the trailer and providing protection from debris falling on the road, which is

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separate and apart from Elliott's teaching of an adjustable roof which eliminates the need to cover loads with a tarpaulin and allows for additional height clearance, when in the raised position, for a forklift operator to load the trailer. Thus, there was no requirement that the inventor use the teaching of the adjustable roof found in Elliott on the trailer of Carter, in order to solve the problem confronting him.

B. Independent Claim 11

The examiner relies on the same combination of Carter, as modified by the teaching of Elliott, in his rejection of claim 11, except he notes that Carter, as modified, does not teach the trailer having a central deeper section in the floor. The examiner finds that Lutkenhouse teaches a trailer having such a central deeper section. As such, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the floor of the trailer of Carter, as modified, with a central deeper section to increase storage space and make the doors of Carter, as modified, with a variable height to cover the side of the central deeper section as an obvious expedient that will prevent debris from falling out of the trailer between the doors and the floor. (Examiner's Answer, p. 4)

Specifically, with regard to the motivation to combine Carter, Elliott, and Lutkenhouse, the examiner finds that the need to increase

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storage is a goal of transportation. (Examiner's Answer, p. 6). The examiner further articulates his rationale as follows,

If the trailer is not loaded to maximum weight capacity when the cargo has reached the maximum allowable height, then the trailer is not as efficient as possible and leads to increased transport costs since more tractor trailers must be used. Since the maximum height is set, as are the lengths and width of the trailer, then the only way to safely provide more storage volume is by lowering at least one section of the floor, as taught by Lutkenhouse.

(Examiner's Answer, p. 6).

With regard to the rejection of claim 11, the appellant argues that the examiner is improperly relying on "observations" of how one of skill in the art might recognize the need for more storage space. The appellant asserts that the examiner employed hindsight, and there is no teaching or suggestion from the prior art to lower the central portion of the floor of Carter or Elliott, and even if that were taught, there is no further teaching or suggestion to add doors to cover that space. (Appellant's Brief, pp. 4-5).

We do not agree that hindsight reconstruction of the prior art is required to sustain the conclusion that the appellant's invention would

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have been obvious. Rather, we agree with the examiner's articulation of his finding of obviousness.

The advantage of a trailer having a central deeper portion in the floor is to provide additional volume for cargo. Such a configuration for trailers is old in the art, as demonstrated by Lutkenhouse. Further, Lutkenhouse is directed to the same problem as Carter and Elliott, i.e., overcoming the disadvantages of conventional flatbed trailers. Lutkenhouse's solution is an expandable trailer van in which the roof and side walls are formed of a flexible material and are adapted to conform to the cargo being transported. (Lutkenhouse, column 1, lines 36-44 and Figure 1).

The trailer field is a mature field of art and the nature of the advance made by the appellant is suggested by the combined teachings of the art taken from the same field and directed to solving the same problem. As such, we find that a person of ordinary skill in the art at the time of the invention and confronted with the general problem faced by the appellant would have been motivated to maximize the cargo volume of the trailer by using the drop deck trailer configuration of Lutkenhouse, in place of a flatbed trailer, as shown in Carter and Elliott, because all of the references relate to overcoming disadvantages with conventional flatbed trailers. It would naturally follow that the size of the doors covering the drop deck

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portion of the open side of the trailer would have to be enlarged to completely cover this opening to prevent debris from falling on the roadway. We thus conclude that based on these teachings of the prior art, a person having ordinary skill in the art at the time of the invention would have viewed the subject matter of claim 11 as a whole to have been obvious in view of the prior art.

C. Dependent Claims 7-9, 12-18

The appellant did not separately argue the patentability of these dependent claims. Rather, he relied on his arguments of patentability for independent claims 6 and 11. Finding no argument for the separate patentability of these claims, they fall with independent claims 6 and 11. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). As such, because we affirm the examiner's rejection of the independent claims, we also affirm the rejection of these dependent claims.

CONCLUSION

To summarize, for the reasons set forth above, we affirm the rejection of claims 6-9 and 11-18.

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No time period for taking any subsequent action in connection
with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

ROBERT E. NAPPI)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LINDA E. HORNER)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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