

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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

Appeal No. 2006-0883
Application No. 10/012,122

ON BRIEF

Before PATE, BARRETT, and TORCZON, Administrative Patent Judges.
PATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-6 and 8-26. These are the only claims in the application.

The claimed invention is directed to storm water drainage systems for golf course sand bunkers. Both bunkers and a method of making such bunkers are claimed. The drainage system comprises a depression in the soil 21 filled with sand 28. A conduit 40 runs along the bottom of the depression in a trench. The conduit 40 has an arch shape with a solid top 42, outwardly sloping sidewalls 44, and downwardly sloped perforations 81 in the sidewalls. The claimed subject matter may be further understood by reference to the appealed claims appended to appellant's brief.

The References

The references of record relied upon by the examiner as evidence of obviousness are:

Hurley et al.	4,960,345	Oct. 2, 1990
Nichols et al. (Nichols '903)	5,511,903	Apr. 30, 1996
Nichols et al. (Nichols '844)	5,839,844	Nov. 24, 1998

The Rejections

Claims 1-3, 6, 8 through 13, 15, 16, and 18-26 stand rejected under 35 U.S.C. 103(a) as unpatentable over Nichols '903 in view of Hurley.

Claims 4, 5, 14 and 17 stand rejected under 35 U.S.C. 103 as unpatentable over Nichols '903 in view of Hurley and further in view of Nichols '844.

For the details of these rejections reference is made to pages 3-15 of the examiner's answer.

Analysis

We have carefully reviewed the rejections on appeal in light of the arguments of the appellant and the examiner. As a result of this review, it is our determination that the applied prior art does not establish the *prima facie* obviousness of any of the claims on appeal. Therefore the rejections of all claims on appeal are reversed. Our reasons follow.

As an initial matter, we note the presence in the ultimate line of claim 1 of the recitation of "the trench." No trench has been previously recited. Claim 2, dependent on claim 1, has the initial recitation of "a trench." This lack of antecedence should be corrected in any further prosecution before the examiner.

These are our findings of fact as to the scope and content of the prior art and the differences between the prior art and the claimed subject matter. Nichols '903 discloses a leaching chamber primarily for dispersing liquids in soil as in a conventional septic system. In use, these chambers are connected together in a trench in the soil and are

covered over with earth. Col. 1, ll. 28-38. Liquid effluent is piped into the chamber system and passes through the open bottom and the perforated sidewalls into the soil. Id. We acknowledge that the last sentence of the specification and several claims indicate that the chambers, when placed as a system, are suitable for gathering liquids from the soil. Nichols mentions that in other patents he has called the units 30, 30a conduits, but in this patent he calls them chambers. Col. 3, ll. 46-47. The chambers or conduits of Nichols '903 have an arch shape cross section, a solid top, and opposing sidewalls with downwardly sloped perforations. The chamber or conduit has an open bottom. The disclosure of Nichols does not mention a drainage system for sand bunkers, and does not disclose a trench below a depression to collect storm water therefrom.

The Hurley invention is concerned with construction of golf course sand bunkers. Hurley discloses that conventional sand bunkers have three major maintenance problems. One, the sand on the edges of the shallow depression that forms the bunker is washed down in a rain and requires pushing back into place. Col. 1, ll. 15-21. Two, the sand is dirtied or contaminated by darker and smaller particles that are from the native soil below the bunker. Col. 1, ll. 22-26. Three, the bunkers, being the lowest places on the course, are difficult to drain. Col. 1, ll. 27-30. These problems are caused by the normal construction of the bunker. The normal bunker is cut in the shape of a bowl, and storm water is caused to move along the sloping interface of the sand and soil picking up speed and eroding the soil as it goes. Col. 1, ll. 43-47. A layer of geotextile fabric is placed under the sand in an effort to prevent contamination. Col. 1, ll. 55-58. This fabric is often snagged raking the bunkers.

As an improvement to the prior art bunkers, Hurley discloses a sand bunker with vertical sides where the storm water flows vertically through the sand. Placed on the flat bottom of the bunker and at the bottom of the trench 56, is an impermeable plastic liner 61, which prevents the water from ever contacting the soil 17 below the sand. See Col. 3, ll.7-30. A “Turf Drain” drain line 50, 60 is placed in trench 56 over the plastic liner. Hurley differs from the claimed subject matter in that it does not recite the arched conduit for a golf course sand bunker, and Hurley uses an impermeable barrier between the soil and the sand in both the depression and trench.

All the examiner’s rejections under section 103 are based on the combined teachings of Nichols ‘903 and Hurley. The examiner adds Nichols ‘844 as needed to show endplates. Appellant argues, on page 7 of the brief, that it is unworkable to combine Hurley with Nichols ‘903 since the combination would result in a Nichols conduit having a closed and impermeable bottom, which would hinder the flow of water to and from the Nichols conduit. We agree. To place the Nichols conduit onto an impermeable membrane and close its open bottom is to negate a desirable feature taught by the Nichols ‘903 reference. Accordingly, it is our view that one of ordinary skill would not have found it obvious to combine the collective teachings of the Nichols ‘903 and Hurley references. Consequently, we reverse all section 103 rejections on appeal, bottomed as they are on Nichols ‘903 in view of Hurley.

Additional Comments on Prior Art of Record

While we have reversed the standing rejections, we make note of the breadth of claim 1 which (if corrected) does not recite even a trench. In view of the express teaching of Nichols ‘903 that the disclosed chamber is placed in a trench and covered

with soil, and that such chambers are suitable for gathering liquid from the soil, we note that the only perceivable difference between the Nichols disclosure and the subject matter of claim 1 may well be the recitation of bunker sand. We further note the admitted prior art of appellant's Figure 1 which discloses the conventional sand trap cross section with a depression, sand, a trench, a perforated conduit, and a teaching of geotextile fabric as a filter.

Summary

In summary, all standing section 103 rejections are reversed.

REVERSED

WILLIAM F. PATE, III)	
Administrative Patent Judge)	
)	
)	
LEE E. BARRETT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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RICHARD TORCZON)	
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