

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KRISTIN W. KAGEN

Appeal No. 2004-0890
Application No. 09/754,291

ON BRIEF

Before WARREN, KRATZ and DELMENDO, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-22, which are all of the claims pending in this application.

BACKGROUND

Appellant's invention relates to a snow plow including a heating element. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A hand-manuevered snow clearing plow comprising:
a wedge-shape blade having at least one hinge;
a heating element secured along only a bottom edge of
said blade; and
a handle attached to a rear side of said blade.

The prior art references of record relied upon by the
examiner in rejecting the appealed claims are:

Mason, Jr. (Mason)	1,276,672	Aug. 20, 1918
Klima et al. (Klima)	1,755,695	Apr. 22, 1930
Clements	2,700,096	Jan. 18, 1955
Denker et al. (Denker)	2,763,506	Sep. 18, 1956
Carlson	3,431,661	Mar. 11, 1969
Kim	5,357,646	Oct. 25, 1994
Kahley	5,676,412	Oct. 14, 1997
Sinclair, Jr. (Sinclair)	5,706,592	Jan. 13, 1998

Claims 1, 7-9, 11, 15-19, 21 and 22 stand rejected under
35 U.S.C. § 103(a) as being unpatentable over Mason in view of
Clements and Kim. Claims 2-5 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over Mason in view of Clements,
Kim, and Klima. Claim 6 stands rejected under 35 U.S.C. § 103(a)
as being unpatentable over Mason in view of Clements, Kim, and
Denker. Claims 10 and 20 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over Mason in view of Clements, Kim and
Sinclair. Claims 12-14 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over Mason in view of Clements, Kim and
Kahley. Claims 1-9, 11, 15-19, 21 and 22 stand rejected under

35 U.S.C. § 103(a) as being unpatentable over Carlson in view of Clements and Kim. Claims 10 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson in view of Clements, Kim and Sinclair. Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson in view of Clements, Kim and Kahley.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellant and the examiner concerning the issues before us on this appeal.

OPINION

Having carefully considered each of appellant's arguments set forth in the brief and reply brief, appellant has not persuaded us of reversible error on the part of the examiner. Accordingly, we will affirm the examiner's rejections for substantially the reasons set forth by the examiner in the answer. We add the following for emphasis.

Appellant states that "[c]laims 2-17 and 19-21 stand or fall together with the independent claim from which they depend" (brief, page 4). Moreover, appellant does not furnish separate arguments for independent claims 1 and 18. Consequently, we select claim 1 as the representative claim on which we base our

decision for each of the first and sixth rejections stated by the examiner. As for the other six rejections that involve only dependent claims, we note that appellant only argues against each of those rejections based on the arguments made for the patentability of representative independent claim 1. See pages 7 and 8 of the brief. On this record, it is manifest that our disposition of those latter six rejections will follow from our disposition of the rejections of claim 1. In this regard, four of those rejections of dependent claims employ Mason as a primary reference and their disposition will follow from the disposition of the rejection of claim 1 that employs Mason as a primary reference. The remaining two rejections of dependent claims list Carlson as the primary reference and their disposition will follow from the disposition of the rejection of claim 1 that employs Carlson as a primary reference.

Mason provides a snow plow with wedge shaped mold boards (5) that include hinges (6) and a handle (11 and 14) attached to the rear thereof, as shown in the drawing figures. Carlson discloses a snow plow with v-shaped portions (30) with hinge (39) and a handle (11 and 14) attached to the rear thereof as shown in the drawing figures of Carlson.

Turning to the examiner's rejections of representative claim 1, appellant does not dispute the examiner's determination that the snow plow of each of Mason and Carlson includes structure corresponding to the claimed wedge-shaped blade having a hinge and a handle attached to a rear side of the blade. The examiner additionally relies on Clements and Kim as teaching the use of a heating element with an ice scraper which, according to the examiner, would have suggested the attachment of a heating element to the snow plows of either Mason or Carlson to result in a structure encompassed by representative claim 1.

It follows that the dispositive issues before us are: (1) whether the combined teachings of Mason, Clements and Kim would have led one of ordinary skill in the art to add a heating element to the snow plow of Mason in a manner so as to arrive at a snow plow embraced by representative claim 1; and (2) whether the combined teachings of Carlson, Clements and Kim would have led one of ordinary skill in the art to add a heating element to the snow plow of Carlson in a manner such that such heating element addition results in a snow plow corresponding to a snow plow embraced by representative claim 1? We answer those questions in the affirmative.

It is important to note that representative claim 1 does not call for any particular type of heating element or any particular heating element structural features. In this regard, appellant's specification (page 2) discloses that a resistance heating element and a source of heat such as electricity or a carrier substrate heating element and a chemical composition as a source of heat may preferably be used. While representative claim 1 is not limited to either of those described disparate preferred embodiments, it is clear therefrom that the claimed heating element includes any type of structure that may be secured to a bottom edge of the claimed snow plow blade so long as that structure represents a source of heat. Representative claim 1 requires that such a heating element is secured along only a bottom edge of the snow plow blade.

Both Kim and Clements teach or suggest that adding heat to a cleaning edge of an ice scraper enhances removal of ice from surfaces such as a windshield by softening or loosening the ice. Kim (column 1, lines 10-19) also discloses that the use of heated blades on sidewalks and highway surfaces was known in the prior art.

Given those prior art disclosures, we agree with the examiner that it would have been prima facie obvious to one of

ordinary skill in the art to secure a heating element to only a bottom of the blades of the snow plows of either Mason or Carlson to aid in ice/snow removal since that is at the snow contacting edge where the heat would be desired to be applied in softening snow/ice to be removed as one of ordinary skill in the art would readily appreciate.

We agree with the examiner's comments in the paragraph bridging pages 9 and 10 of the answer, especially concerning the prior art disclosure furnished in Kim, which disclosure effectively disposes of appellant's erroneous contentions to the effect that Clements and Kim represent non-analogous art.

Concerning the representative claim 1 requirement that the heating element is "secured along only a bottom edge of said blade," appellant's arguments are misdirected in focusing on an alleged lack of such a secured heating element in either Clements or Kim. This is so since the examiner's rejections are over the combined teachings of either Carlson or Mason taken with Clements or Kim. When looked at in the context of a snow plow as disclosed by Carlson or Mason, it is manifest that one of ordinary skill in the art would secure a heating element, such as suggested by Kim or Clements to the bottom edge of the snow plow blade since that is the location where securing such an element

would be recognized as being most likely to be of assistance to a user of a snow plow. For example, in arguing against the combination with the Carlson snow plow, appellant maintains that removal of the scraper bar (32) of Carlson, which is secured to the bottom edge of the plow, would be necessary and contrary to the teachings of Carlson since Carlson employs that scraper bar to assist "in cleaning snow from a surface." However, contrary to appellant's viewpoint, it is our opinion that one of ordinary skill in the art would have recognized at the time of the invention that the removable scraper bar (32) of Carlson is precisely the location where a heating element would have been located. Indeed, the collapsible and storable snow plow of Carlson or at least the detachable scraper bar thereof is clearly capable of being stored in a garage or other structure which reasonably would have been maintained at a temperature greater than the snow to be cleared. As such, the scraper bar (32) of Carlson would be embraced by the claimed heating element required by representative claim 1 since no particular type or structure for the heating element is specified in that representative claim. In other words stored heat in such a scraper bar would result in the scraper bar being a heating element as broadly claimed. Moreover, in light of the teachings of the secondary

references, we agree with the examiner that replacement of such a scraper bar in Carlson with a scraper heating element that has been modified to include heating means, such as an electric heating device, would have been suggested by the combined teachings of the applied references to aid in snow/ice removal. Similarly, the addition of such a removable scraper/heating element to the bottom edge of the snow plow blade of Mason would have been suggested to one of ordinary skill in the art with a reasonable expectation of success based on the combined teachings of the applied references, especially given the disclosure in Kim concerning the prior application of heated blade scrapers in sidewalk and highway ice clearing. Certainly, it is within the ambit of one of ordinary skill in the art to employ an ice scraper/heating element structure that is amendable for securing to a snow plow based on the combined teachings of the applied references. Thus, appellant's contention that the sharp leading edge of the ice scrapers designed for window ice scraping of the secondary references would not be compatible with a snow plow structure misses the mark in that one of ordinary skill in the art would recognize that a different size and type of leading edge is appropriate for a sidewalk or driveway clearing snow plow

than for a hand window scraper. See the prior art described in the first column of Kim, for example.

We note that appellant bases no arguments on the presentation of evidence of unexpected results.

In light of the above and for reasons set forth in the answer, we will sustain all of the examiner's rejections on this record.

CONCLUSION

The decision of the examiner to reject claims 1, 7-9, 11, 15-19, 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Mason in view of Clements and Kim; to reject claims 2-5 under 35 U.S.C. § 103(a) as being unpatentable over Mason in view of Clements, Kim, and Klima; to reject claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Mason in view of Clements, Kim, and Denker; to reject claims 10 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Mason in view of Clements, Kim and Sinclair; to reject claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over Mason in view of Clements, Kim and Kahley; to reject claims 1-9, 11, 15-19, 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Carlson in view of Clements and Kim; to reject claims 10 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson in view of

Clements, Kim and Sinclair; to reject claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson in view of Clements, Kim and Kahley is affirmed.

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

AFFIRMED

CHARLES F. WARREN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
PETER F. KRATZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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ROMULO H. DELMENDO)	
Administrative Patent Judge)	

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NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714