

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 27

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

---

Ex parte JOHN M. STRUCK, LYNN W. SCHULTZ  
and TERRY C. WENDORFF

---

Appeal No. 2002-0312  
Application No. 08/953,922

---

HEARD: March 19, 2002

---

Before ABRAMS, STAAB, and BAHR, Administrative Patent Judges.  
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-4 and 7-20, which are all of the claims pending in this application.

We REVERSE.

### BACKGROUND

The appellants' invention relates to a remote controlled snowplow for a vehicle. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the Brief.

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

Cummins	3,761,040	Sep. 25, 1973
Griswold <u>et al.</u> (Griswold)	4,776,750	Oct. 11, 1988
Simi <u>et al.</u> (Simi)	4,999,935	Mar. 19, 1991

"HYDRA-SCOOP SNOW PLOW," Farm Industry News, Vol. 23, No. 7, page 25, July/August 1990 (Hydra-scoop)

The following rejections stand under 35 U.S.C. § 103:

- (1) Claims 1-4 and 7-20 on the basis of Hydra-scoop and Cummins.
- (2) Claims 1-4 and 7-20 on the basis of Simi and Cummins.
- (3) Claims 1-4 and 7-20 on the basis of Griswold and Cummins.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Answer (Paper No. 21) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 20) and Reply Brief (Paper No. 23) for the appellants' arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

This application is concerned with the reissue of U.S. Patent No. 5,524,368, issued June 11, 1996. It seeks to correct several errors in the patent which, according to the appellants, unduly limited the claims, as explained in the reissue declaration. The invention relates generally to controls for snow plows of the type designed to be connected to a vehicle such as a car or truck, and specifically to providing a wireless remote control for such plows for the purpose of facilitating the installation and removal of the plows from the vehicles. It accomplishes this by eliminating the need to provide hard wiring for a control system between the vehicle cab and the snow plow blade and the attendant electrical connections which must be coupled and uncoupled during these operations. As manifested in claim 1, the invention comprises a snow plow blade pivotally attached to the front of a plow mounting carriage having a rear removably connectable to the front of a vehicle, a self-contained, battery powered, portable transmitter which transmits an R.F. control signal and has controls for selectively raising, lowering, and pivoting the snow plow blade, a receiver which receives R.F. control signals sent by the transmitter and provides an output control signal in response thereto, and an adjusting mechanism attached at least in part to the plow mounting

carriage which raises, lowers, and pivots the snow plow blade in response to the output control signal from the receiver.

All of the rejections are under 35 U.S.C. § 103. The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

(1)

In the first of the three rejections of claims 1-4 and 7-20, the examiner takes the position that Hydra-scoop discloses all of the subject matter recited in claim 1 except for

specifying the type of remote control utilized to control the snow plow blade, but that one of ordinary skill in the art would have found it obvious to utilize a wireless remote control of the kind claimed, in view of the teachings of Cummins. The examiner opines that wireless remote controls “are common and well known,” provide “flexibility,” and “could also be used to help in the mounting and dismounting of the snow blade to the vehicle” (Answer, page 4). The examiner further states that the Cummins remote control “is an equivalent structure known in the blade control art,” and “was an art-recognized equivalent at the time the invention was made” (Answer, page 5). We do not agree with the examiner’s rationale or conclusion, on the basis of the following reasoning.

The Hydra-scoop disclosure consists of a photograph of a four-section snow plow installed on the front of a truck, and some seventy words of description. The text states that “the plow features remote control,” but does not provide any details thereof, in particular, whether it is a wireless remote control, as is required by claim 1. The presumption arises, therefore, that the “remote control” is a cab-mounted hard-wired system which the appellants describe as the prior art in the opening paragraphs of their specification. Further with regard to the requirements of claim 1, Hydra-scoop fails to explicitly disclose or teach that the plow has an adjusting mechanism which “raises, lowers, and pivots” the blade in response to the remote control signals, or that the

adjusting mechanism is mounted at least in part on a snow blade mounting carriage which is connected to the front of the truck.

Cummins discloses a tracked vehicle whose primary use is for transporting a helicopter. The vehicle can be operated from a distance by a wireless remote control system which includes a battery powered portable radio transmitter that sends signals to a receiver located in the vehicle. In one of the embodiments (Figure 19), the vehicle is depicted with an "earth-moving" plow blade installed on the front. Although the reference describes using the remote control to operate mechanisms for lifting a helicopter on and off of the vehicle and attaching it thereto, it contains no teaching of controlling the blade separate from the vehicle (see column 10, lines 26-30). From our perspective, one of ordinary skill in the art would have been instructed by Cummins that a vehicle having an earth-moving blade attached to its front can be operated by a wireless remote control system. However, there is nothing which would suggest that the blade can be raised, lowered or pivoted with respect to the vehicle by utilizing radio remote control signals, or that there is an adjusting mechanism attached at least in part to a plow mounting carriage and which so moves the blade.

It is well established that the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See, for example, In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Absent evidence to the contrary, which has not been presented, the Hydra-scoop snow plow blade is operated from inside the vehicle cab by means of a hard-wired control system. There is no explicit disclosure in either reference of controlling a snow plow blade with a wireless remote control and receiver. It is significant that the problem to which the appellants have directed their inventive efforts, that of simplifying installation and removal of a plow blade from a vehicle, has not been recognized in either of the references. There is no explicit disclosure in Hydra-scoop or in Cummins of a snow blade that can be raised, lowered and pivoted, and the examiner has adduced no evidence that the claimed blade movements would have been inherent to the blades disclosed in either of the references or would have been considered by the artisan to be well-known. Nor does either reference disclose that the blade is mounted on a carriage that is removably connected to the front of the vehicle and upon which the adjusting mechanism is mounted. Considering these factors, we arrive at two conclusions. The first is that we fail to perceive any teaching, suggestion or incentive which would have led one of ordinary skill in the art to modify the Hydra-scoop snow plow by installing a wireless remote control to operate the snow plow blade. The second is that even if the references were combined, the result would not be the claimed structure, for some elements clearly are not disclosed or taught in the applied references.

The examiner's attempt on pages 8-15 of the Answer to explain why these considerations are not valid and why one of ordinary skill in the art would have found it obvious to modify the Hydra-scoop reference to the extent necessary to meet the requirements of claim 1 is not persuasive, but amounts to merely countering the appellants' assertions that certain features are not present in the references and that suggestion to combine the references in the manner the examiner proposes is lacking, with the examiner's unsupported opinion that such is not the case.

It is the examiner's duty to establish a prima facie case of obviousness based upon evidence (Uniroyal, Inc. v. Rudkin-Wiley Corp., *supra*), and in our view this obligation has not been met with regard to claim 1 by the teachings of Hydra-scoop and Cummins. It would appear that the only suggestion to combine the references in the manner proposed by the examiner is found in the hindsight afforded one who first viewed the appellants' disclosure; this, of course, is not a proper basis for a rejection under Section 103. In re Fritch, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). We therefore will not sustain this rejection of claim 1.

One or more of the requirements recited in claim 1 and discussed above are present in each of the other independent claims before us and, considering the deficiencies in the structures disclosed in Hydra-scoop and Cummins and the lack of suggestion to combine the references in the manner proposed by the examiner, we also will not sustain this rejection of claims 2-4 and 7-20.

(2)

Claims 1-4 and 7-20 also stand rejected as unpatentable over Simi in view of Cummins. The examiner's position is that Simi discloses it was known in the snow plow art to remotely control a snow plow blade but lacks a teaching of doing so by means of a wireless remote control which, however, would have been obvious in view of the showing of Cummins (Answer, page 6). The examiner's rationale for combining the references in this manner is the same as it was in the rejection discussed above, namely, remote controls are well known and "could also be used to help in the mounting and dismounting of the snow blade to the vehicle" (Answer, page 6), and are "art-recognized equivalent[s]" of wired systems (Answer, page 7).

Simi discloses exactly the type of snow plow blade control system over which the appellants believe their invention to be an improvement, for Simi provides a control box inside the vehicle cab which is hard-wired to the snow plow operating mechanism.

Cummins teaches utilizing a wireless remote system to control a vehicle, which in one embodiment is equipped with a plow blade. However, as we stated above, there is no evidence to support a conclusion that this blade is a snow blade or is movable at all, much less movable in the manner specified in the appellants' claim 1. Moreover, the examiner's conclusion that remote controls are equivalents of hard-wired controls is unsupported by evidence, and his opinion that such controls could be used to facilitate plow installation and removal must be considered to be based upon hindsight in that no

recognition of the problem solved by the appellants' invention is present in the applied references and no other reason is provided for modifying the Simi apparatus by replacing the hard-wired control with a wireless remote control.

As was the case with the first, this rejection lacks the required suggestion to combine the references in the manner proposed by the examiner. This being the case, the combined teachings of the two references fail to establish a prima facie case of obviousness with regard to the subject matter recited in claim 1, and we will not sustain this rejection.

The lack of suggestion to combine the references also causes this rejection to be fatally defective with regard to claims 2-4 and 7-20, which recite at least some of the structural limitations of claim 1, which were discussed above.

(3)

Claims 1-4 and 7-20 further stand rejected on the basis of Griswold and Cummins. The examiner adds Cummins to Griswold for its disclosure of a wireless remote control that is self-contained and battery-powered, which the examiner believes is lacking in Griswold. However, from our perspective, much else is lacking from Griswold. We first point out, in this regard, that the examiner's conclusion on page 8 of the Answer that Griswold "discloses a wireless snow plow control system" is without

merit in that there is no mention in Griswold that the plow shown on the front of the disclosed "earth working vehicle" (see title) is a snow plow. Griswold teaches operating a vehicle and the earth working implements carried on the vehicle by means of a wireless remote control, rather than from inside the vehicle, in order to allow the vehicle and its earth working implements to be used in dangerous areas, such as where explosives or toxic materials exist, or in situations where damage could be done to the vehicle and an operator positioned therein by falling debris or vehicle turnover (column 1, lines 7-32). Griswold describes the blade as "a transverse bulldozer blade" mounted to the undercarriage of the vehicle in "known" manner, which can be "raised and lowered" (column 3, line 19 et seq.). There is no evidence to establish that the blade is removable from the vehicle or that it is capable of pivotable movement.

Griswold does not disclose a snow blade, and explicitly teaches that the bulldozer blade that is disclosed is movable only up and down. Griswold also fails to disclose a blade mounting carriage that is removably connected to the front of the vehicle and upon which at least a part of the adjusting mechanism is attached, both of which are required by claim 1, and there is no evidence presented to overcome these deficiencies. Consideration of Cummins fails to solve the problems with Griswold. We therefore also will not sustain this rejection of claim 1.

As was the case with the other two rejections, at least some of the same shortcomings of this rejection are applicable to claims 2-4 and 7-20, and we will not sustain this rejection of those claims.

Unquestionably, it is well known to use wireless remote controls to operate a multitude of devices, from garage doors to satellites. However, this does not, in and of itself, provide a basis from which to conclude that it therefore would have been obvious to operate any device by means of a wireless remote control, including a snow plow having the characteristics recited in the appellants' claims. To arrive at the conclusion that the invention claimed by the appellants would have been obvious to one of ordinary skill in the art requires the presentation by the examiner of evidence establishing a prima facie case of obviousness with regard to each and every limitation recited in each of the claims which, quite importantly in the present case, must include the requisite suggestion to combine the references in the manner proposed by the examiner. This, in our view, has not been accomplished in the three rejections before us.

#### SUMMARY

None of the rejections are sustained.

The decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS  
Administrative Patent Judge

LAWRENCE J. STAAB  
Administrative Patent Judge

JENNIFER D. BAHR  
Administrative Patent Judge

)  
)  
)  
)  
)  
) BOARD OF PATENT  
) APPEALS  
) AND  
) INTERFERENCES  
)  
)  
)  
)  
)

Appeal No. 2002-0312  
Application No. 08/953,922

Page 14

REINHART, BOERNER, VAN DEUREN S.C.  
1000 NORTH WATER STREET  
SUITE 2100  
MILWAUKEE, WI 53202