

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRIAN JAMES BERDAN, BRIAN C. PETERSON
and WALTER JAMES BUTLER

Appeal No. 2003-0106
Application 09/502,680

ON BRIEF

Before FRANKFORT, STAAB, and BAHR, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 21 through 29, which are all of the claims remaining in this application. Claims 1 through 20 have been canceled.

Appellants' invention is directed to a method of installing replaceable plates, such as cutting edges and wear plates, used

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on the blades of plows and graders. As noted on page 2 of the specification, replacement of such plates traditionally involves two workers manually holding the replacement plate off of the ground and moving the plate until the attachment holes in the plate align with the corresponding attachment holes defined in the blade, while a third worker inserts bolts through the aligned attachment holes. By contrast, appellant provides a device for assisting a worker with manipulation of the plates during installation and removal thereof. Even more specifically, the present application has an objective of providing a system (method) that permits the plates to be replaced by only one worker, without requiring the worker to manually hold the plates off the ground during replacement or removal. Independent claim 28 is representative of the subject matter on appeal and a copy of that claim may be found in Appendix 1 of appellants' brief.

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

Shannon	3,275,166	Sept. 27, 1966
Pistole	5,667,207	Sept. 16, 1997

In addition, the examiner has relied upon the disclosure found at page 1, line 21 through page 2, line 14 of appellants'

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specification as being Admitted Prior Art (hereinafter, the APA).

Claims 21, 22 and 27 through 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shannon.

Claims 21 through 23 and 25 through 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the APA in view of Shannon.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the APA in view of Shannon as applied to claims 28 and 23 above, and further in view of Pistole.

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding those rejections, we make reference to the examiner's answer (Paper No. 13, mailed June 11, 2002) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 11, filed May 7, 2002) for the arguments thereagainst.

OPINION

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

However, before looking to the prior art rejections put forth by the examiner, we note that it is an essential prerequisite that the claimed subject matter be fully understood. Accordingly, we initially direct our attention to appellants' independent claim 28 to derive an understanding of the scope and content thereof. Claim 28 sets forth a method of installing replaceable, elongated plates (136, 138) on the blade (140) of a plow or grader, said method including the steps of a) supporting at least one plate (e.g., 136 as in Fig. 1) on a mobile cart (10) by placing the plate on an angularly height adjustable plate holder (e.g., 16, 20) of the cart, and b) aligning attachment holes defined in the plate with corresponding attachment holes in

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the blade by "angularly adjusting the height of the holder incrementally and thereby the height of the at least one plate incrementally."

Before the U.S. Patent and Trademark Office, when evaluating claim language during examination of an application, the examiner is required to give the terminology of a claim its broadest reasonable interpretation consistent with the specification, and to remember that the claim language cannot be read in a vacuum, but instead must be read in light of the specification as it would have been interpreted by one of ordinary skill in the pertinent art. See In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990) and In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

Thus, while it is true that appellants have not used the language "angularly adjusting the height of the holder incrementally" in the specification or provided a specific definition of the term "incrementally," it is important that we understand from appellants' disclosure exactly what appellants mean by such recitations and that we give such terminology of the

claims its broadest reasonable interpretation consistent with the specification. To that end, we look to the amendment filed May 14, 2001 (Paper No. 6) wherein the language in question was first introduced into the claims of the present application. On pages 3 and 4 of that amendment appellants direct us to page 7, lines 10-24 of the specification for support for the limitation in question. Page 7 of the specification discusses the parallelogram linkage (20) and movement of such linkage via an actuator (22) to provide adjustment of the height of the plate holders (16, 18). More particularly, it is indicated that the actuator (22)

comprises a hand-operated hydraulic piston and cylinder assembly including a cylinder 94 housing the piston (not shown) and a rod 96 telescopically received within the cylinder 94 and attached to the piston. This type of assembly is often referred to as a "bottle jack", although any suitable actuator (e.g., a ratchet-type lift) may be used. In the usual manner, the jack 22 includes a pedestal 98, from which the cylinder 94 projects, and a crank mechanism 100 that controls extension of the rod 96 relative to the cylinder 94. The mechanism 100 also includes a removable arm 102 and a release screw (not shown) that permits retraction of the rod 96 when activated. As is also customary, a screw 103 is threadably connected to the distal end of the rod 96.

Further description of the actuator or jack (22) and its relationship to the parallelogram linkage (20) is found on page 8, lines 1-23 of the specification, wherein it is noted that

extension of the rod (96) relative to the cylinder (94) of actuator (22) causes the linkage (20) to unfold and thereby raise the plate holders (16, 18) and, by inference, any replaceable plate or plates carried thereon.

Based on the foregoing, it is clear to us that an understanding of the claim language in question hinges on what enlightenment one of ordinary skill in the art would derive from appellants' specific reference on page 7 of the specification to a "bottle jack" or "ratchet-type lift" being suitable for use as the actuator (22) of the invention. In our opinion, one of ordinary skill in the art at the time of appellants' invention would have understood that a conventionally available "bottle jack" or "ratchet-type lift" operates via movement of a handle or rod, like (102) seen in Figures 1-3 of the present application, in an up and down pumping action, wherein each downward movement of the handle/rod causes a relatively small, incremental movement or extension of the actuator rod (96) to occur and whereby movement of the linkage (20) and raising of the plate holders (16, 18), and any replaceable plate or plates carried thereon, from the fully lowered position seen in Figure 4 of the application drawings to the fully extended condition seen in

Figure 3, takes place in a stepwise fashion via a series of such small, incremental movements.

Thus, in the context of the present application, the claim language "angularly adjusting the height of the holder incrementally and thereby the height of the at least one plate incrementally," must be construed to mean that in moving from the fully lowered position seen in Figure 4 of the application to the fully extended condition seen in Figure 3, the parallelogram linkage (20) moves angularly upwardly in a series of small steps or increments caused by repeated movements of the handle/rod (102) of the actuator (22), with the plate holders (16, 18) mounted on linkage (20) likewise moving incrementally upwardly in a series of small steps. In our view, this is the broadest reasonable interpretation consistent with appellants' specification, when the claim language in question is read, not in a vacuum, but instead in light of the specification as it would have been interpreted by one of ordinary skill in the pertinent art.

With the above interpretation in mind, we look to the examiner's rejection of claims 21, 22 and 27 through 29 under 35 U.S.C. § 102(b) as being anticipated by Shannon. According to the examiner (answer, page 3), Shannon teaches a method for installing replaceable, elongated plates (12) on the blade (16) of a plow or grader (22), wherein such method includes

the step of angularly adjusting the height of the holder (34) incrementally and thereby the height of the at least one plate incrementally (col. 4, lines 20-24)."

Further insight into the examiner's position is found on pages 5-6 of the answer, wherein the examiner urges that in moving the holder (34) from the position seen in Figure 5 of Shannon to that in Figure 6, "the steps of angularly adjusting the height incrementally occurs." More particularly, the examiner contends that an ordinary definition of the term "incrementally" must be used, and that such definition from the tenth edition of the Merriam-Webster's Collegiate Dictionary is "the action or process of increasing." The examiner concludes by noting that Shannon "teaches the act of increasing the height and angle of the holder 34 from the position seen in fig. 5 to the position seen in fig. 6" (answer, page 6).

Contrary to the examiner's position, we find no teaching or suggestion in Shannon of angularly adjusting the height of the holder (34) incrementally and thereby the height of the at least one plate incrementally. Based on the disclosure of Shannon (e.g., col. 4, lines 10-18), it appears that when the moldboard (18) of the scraper is brought into close vertical relationship with the dolly (10), the carriage or holder (34), with the replaceable blade or plate (12) attached thereto, is manually swung upwardly from the generally horizontal position seen in Figure 5 into a substantially erect position, as shown in Figure 6. It appears to us that such movement of the carriage or holder (34) in Shannon is intended to be continuous and that no incremental movement of the holder is contemplated or desired.

Moreover, we note that the examiner's attempt to apply the dictionary definition of "incrementally" noted above, appears to us to be merely an attempt on the examiner's part to read that terminology out of the claim entirely, without giving it any meaningful weight whatsoever. In that regard, we consider that "angularly adjusting the height of the holder" as set forth in appellants' claim 28 would itself have been understood to involve "the action or process of increasing," while the terminology

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"incrementally" describes in more detail exactly how the action of increasing is achieved, i.e., in a stepwise fashion via a series of small, incremental movements.

Since Shannon does not disclose or teach, either expressly or inherently, each and every limitation of appellants' claim 28 on appeal, it follows that the examiner's rejection of that claim, and of claims 22 and 27 through 29 which depend therefrom, under 35 U.S.C. § 102(b) will not be sustained.

The next rejection for our review is that of claims 21 through 23 and 25 through 29 under 35 U.S.C. § 103(a) as being unpatentable over the APA in view of Shannon. In this instance, the examiner takes the manual plate replacement process of the APA as described above and contends that it would have been obvious to one of ordinary skill in the art to implement such a process using a mobile cart or dolly like that of Shannon, which the examiner again has asserted includes that step of "angularly adjusting the height of the holder incrementally and thereby the height of the at least one plate incrementally" (answer, page 4). For the same reasons set forth above, we find that the examiner's error in construing the language of independent claim 28 and the

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error in the findings regarding operation of the carriage or plate holder (34) of Shannon requires us to refuse to sustain this rejection as well.

Replacing the method of the APA, where three workers were used to replace a plate on the blade of a plow or grader, with the method of Shannon, wherein a dolly (10) is used to support a blade or plate (12) and assist in adjustably positioning the same to effect registration of the blade/plate fastening holes with corresponding holes of the moldboard/blade, merely results in the method of Shannon, which we have indicated above does not teach or suggest appellants' claimed method involving "incrementally" angularly adjusting the height of the holder and thereby the height of the at least one plate "incrementally."

Regarding the examiner's rejection of dependent claim 24 under 35 U.S.C. § 103(a) as being unpatentable over the APA, Shannon and Pistole, we have reviewed the additional reference to Pistole, but find nothing therein which overcomes or provides for the deficiencies we have identified above with regard to the basic combination of the APA and Shannon. Accordingly, the

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examiner's rejection of dependent claim 24 under 35 U.S.C. § 103(a) will likewise not be sustained.¹

In light of the foregoing, it is our determination that the examiner's rejection of claims 21, 22 and 27 through 29 under 35 U.S.C. § 102(b) as being anticipated by Shannon, and the examiner's separate rejections of claims 21 through 23 and 25 through 29 under 35 U.S.C. § 103(a) as being unpatentable over the APA in view of Shannon and claim 24 under 35 U.S.C. § 103(a) as being unpatentable over the APA in view of Shannon and Pistole, will not be sustained.

¹ Also of concern in the present application is the examiner's total lack of any specific treatment of the limitations of claims 23 through 26 on appeal involving "substantially superimposing one plate over another plate such that two superimposed plates are supported on the cart" and other features associated therewith.

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It follows from the above determinations that the decision of the examiner rejecting claims 21 through 29 of the present application is reversed.

REVERSED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
LAWRENCE J. STAAB)	
Administrative Patent Judge)	APPEALS AND
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