

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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 PAUL SMIT et al.

Appeal No. 1999-2034
Application No. 08/718,573¹

ON BRIEF

Before CALVERT, NASE, and GONZALES, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the refusal of the examiner to allow claims 36 to 41, as amended subsequent to the final rejection. These claims constitute all of the claims pending in this application.

We AFFIRM.

¹ Application for patent filed October 2, 1996. According to the appellants, the application is the national stage application of PCT/NL95/00129, filed April 7, 1995.

BACKGROUND

The appellants' invention relates to a method of forming a trench in the bed of a body of water. An understanding of the invention can be derived from a reading of exemplary claim 36, which appears in the appendix to the appellants' brief.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Cousineau	5,305,585	Apr. 26, 1994
-----------	-----------	---------------

Claims 36 to 41 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cousineau.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (Paper No. 13, mailed November 9, 1998) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 11, filed October 20, 1998) and reply brief (Paper No. 14, filed January 11, 1999) 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 reference, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Claim 36

We sustain the rejection of claim 36 under 35 U.S.C. § 103.

Claim 36 reads as follows:

A method of forming a trench in the bed of a body of water, said bed having an initial undisturbed upper surface, comprising
suspending a pressure line from a vessel floating on said body of water, said pressure line terminating downwardly in a downwardly directed nozzle,
positioning said nozzle a distance above said bed,
pumping water under pressure on board said vessel and discharging said water via said pressure line and said nozzle downwardly against said surface with said water pumped at an overpressure between 0.01 bar and 20 bar and at a flow rate of 0.25 to 20.0 cm [cubic meters] per second.

Cousineau's invention relates to devices for removing aquatic plants from lakes and ponds, and more particularly to a device for uprooting aquatic plants using a plurality of water

jets directed into the soil bearing the plant roots. As shown in Figure 1, Cousineau's aquatic plant uprooter 10 includes a hollow handle 12, a hollow discharge member 14 connected at right angles to the handle, and a plurality of regularly spaced apart nozzles 18 connected to the discharge member. A flexible hose 26 connects a distal end of the handle to a water pump 24. An intake hose 28 fluidically connects the intake of the water pump 24 to the body of water 30. The handle serves as a fluidic conduit for water from the pump to flow into the discharge member, which in turn, serves as a fluidic conduit for water from the handle to flow into the nozzles. The nozzles are structured, located and mutually spaced so that a jet of water emerges from each, which collectively disturbs the soil of a body of water so as to uproot aquatic plants in a swath across the discharge member by loosening their anchorage in the soil. The soil-freed plants may be directly accumulated in a collection net attached to the handle and discharge member, or may be collected by use of a separate rake-net system.

Cousineau teaches (column 6, lines 21-39) that the water pump 24 has a 2.5 H.P. motor and the pump is of the centrifugal

type, rated at 5,700 gallons-per-hour² at 20 p.s.i.³ Cousineau further teaches (column 6, lines 43-54) with reference to Figures 1 and 6, that the operation of the aquatic plant uprooter is as follows:

The user grabs the hand grip 12b and places the discharge member adjacent the lake bottom 20 with the nozzles 18 pointing directly down thereinto. The water pump 24 is thereupon actuated, causing pressurized water W to flow through the handle and discharge member and then emerge as a water jet J from each of the nozzles 18. The water jets churn the soil 20a of the lake bottom 20, undermining the roots by forming a pocket 36 of very loose soil and water, thereby causing the roots 38a of aquatic plants 38 to be freed from the soil 20a (or freed with very little mechanical assist) and then be collected.

Cousineau discloses (column 7, lines 25-36) that

[w]hile the description of operation hereinabove pertains to an individual standing in the water or the adjacent shore, it is also possible to operate the aquatic plant uprooter 10 from a boat or other platform over the water, such as a dock. It is further possible to mount the water pump 24 to a floating platform or position it in a boat or upon some other platform over the water. Further in this regard, it is possible for the aquatic plant uprooter to be constructed on a much larger scale for aquatic plant uprooting of extensive sections of a lakebottom using appropriate support machinery such as a boat mounted derrick.

² The flow rate disclosed by the patent was changed from 5,700 gallons-per-minute to 5,700 gallons-per-hour by a Certificate of Correction dated October 4, 1994.

³ Cousineau discloses (column 7, lines 14-24) that pressures of between 20 to 60 p.s.i. are preferred, and pressures around 20 p.s.i. are most preferred.

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of Cousineau and claim 36, it is our opinion that the only difference is the limitation that the flow rate is between 0.25 to 20.0 cubic meters per second. Whereas, Cousineau's flow rate is rated at 5,700 gallons-per-hour (i.e., 0.00599 cubic meters per second) and calculates out to 125 gallons per minute⁴ (i.e., 0.00947 cubic meters per second).

With regard to this difference, the examiner first calculated (answer, p. 6) that an 80 hp motor would be required to run a pump at 20 p.s.i. with a flow rate of 0.25 cubic meters per second (with a pump efficiency of 0.60) and thereafter determined that

the use of an 80 hp motor would clearly be reasonable and obvious to one having ordinary skill in the art if the uprooter of Cousineau was to be scaled for use on a boat to uproot extensive sections of a lake bottom as suggested by Cousineau.

⁴ See page 4 of the brief.

We agree. Moreover, we note that the appellants have not challenged or responded to this obviousness determination made by the examiner for the first time in the answer.

The arguments put forth by the appellants (brief, pp. 3-4; reply brief, pp. 1-2) that there are additional differences between Cousineau and claim 36 are unpersuasive for the following reasons.

First, the appellants argue that the nozzles 18 of Cousineau are below the level of undisturbed upper surface of the bed of the body of water as shown in Figure 6 of Cousineau. While this is literally true, the real issue is whether or not the limitation of "positioning said nozzle a distance above said bed" of claim 36 is met by Cousineau. From the above-noted teachings of Cousineau and the common sense⁵ of the artisan, we conclude that to have reached the position of the nozzles 18 shown in

⁵ An artisan is presumed to know something about the art apart from what the references disclose (see In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962)) and the conclusion of obviousness may be made from "common knowledge and common sense" of the person of ordinary skill in the art (see In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)). Moreover, skill is presumed on the part of those practicing in the art. See In re Sovish, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

Figure 6, the nozzles at some point in time would have had to be positioned above the bed (i.e., lake bottom 20).

Second, the appellants argue that Cousineau operates in an entirely different way from the present invention, for an entirely different reason. We do not agree. In that regard, it is our opinion that Cousineau operates in a way very similar to that set forth in claim 36. While the purpose behind the appellants' method is to dig a trench in which a cable or pipe is to be buried (Cousineau's method is to uproot aquatic plants), such purpose is not set forth in claim 36. Thus, we find that Cousineau discloses a method of forming a trench (i.e., pocket 36) in the bed of a body of water, the bed having an initial undisturbed upper surface (i.e., lake bottom 20), comprising suspending a pressure line from a vessel floating on said body of water (i.e., handle line 12 when operated from a boat mounted derrick), the pressure line terminating downwardly in a downwardly directed nozzle (i.e., discharge member 14 with nozzles 18), positioning the nozzle a distance above the bed (at least prior to operating the pump 24), pumping water under pressure on board the vessel and discharging said water via said pressure line and the nozzle downwardly against the surface with

the water pumped at an overpressure between 0.01 bar and 20 bar (i.e., pump 24).

For the reasons stated above, the decision of the examiner to reject claim 36 under 35 U.S.C. § 103 is affirmed.

Claims 37 to 41

The appellants have grouped claims 36 to 41 as standing or falling together.⁶ Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 37 to 41 fall with claim 36. Thus, it follows that the decision of the examiner to reject claims 37 to 41 under 35 U.S.C. § 103 is also affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 36 to 41 under 35 U.S.C. § 103 is affirmed.

⁶ See page 2 of the appellants' brief.

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

AFFIRMED

IAN A. CALVERT)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JEFFREY V. NASE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
JOHN F. GONZALES)	
Administrative Patent Judge)	

Appeal No. 1999-2034
Application No. 08/718,573

Page 11

YOUNG & THOMPSON
745 SOUTH 23RD STREET
ARLINGTON, VA 22202