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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte DAVID R. BISSEN,
WILLIAM F. BURCH,
and
LAWRENCE P. SCHMIDT

_____

Appeal No. 2003-0771
Application No. 09/931,666

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ON BRIEF

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Before STAAB, MCQUADE, and NASE, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1-23, all the claims currently pending in the application.

Appellants' invention relates to a fire-fighting apparatus (claims 1-16) and method (claims 17-23) for dispensing a quenching agent on a fire source, and more particularly, to a fire-fighting vehicle comprising an articulated boom having a

pipeline connected thereto for conveying a quenching agent to a nozzle connected to a distal end of the pipeline. A further understanding of the invention can be derived from a reading of independent claims 1, 13 and 17, which appear in an appendix to appellants' brief.

The references relied upon by the examiner in the final rejection as evidence of obviousness are:

Krynytzky et al. (Krynytzky)	3,253,677	May 31, 1966
Ronan et al. (Ronan)	5,045,217	Sep. 3, 1991
Williams	5,566,766	Oct. 22, 1996
Thorton-Trump	5,746,396	May 5, 1998

Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Krynytzky in view of Ronan, Williams and Thorton-Trump.

Reference is made to appellants' brief (Paper No. 8) and to the examiner's answer (Paper No. 9) for the respective positions of appellants and the examiner regarding the merits of this rejection.[1]

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[1]Independent method claim 17 recites the step of operating the pump to pump the quenching agent at a flow rate of "at least about 3,000 gallons per minute." Claims 20 and 21, which depend from claim 17, appear to be inconsistent with the above noted operating step of claim 17 in that they call for pumping the quenching agent at flow rates of "about 2,100 gallons per minute" and "about 1,500 gallons per minute," respectively. These apparent inconsistencies are deserving of correction upon return of this application to the Technology Center.

DISCUSSION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determination that the examiner's above-noted rejection will not be sustained. Our reasons follow.

At the outset, appellants contend (brief, pages 5-7) that Ronan and Thorton-Trump are nonanalogous art. In an obviousness determination under 35 U.S.C. § 103(a), the question of whether an applied reference constitutes analogous art is normally considered to be a threshold issue. However, in the view we take in this appeal, even if we assume that Ronan and Thorton-Trump are analogous, the obviousness rejection made by the examiner in the final rejection and maintained in the answer is not well founded.

Krynytzky, the examiner's primary reference, pertains to a fire-fighting vehicle comprising a double arm boom 20 carried by a turntable 22 on the vehicle. Each arm of the boom is capable of being individually elevated by hydraulic lifts, and the outboard end of the top arm of the boom carries water nozzles 24 for delivering water to the fire. Boom 20 includes pairs of

water pipes 50 secured to the exterior of and extending along opposite sides of the bottom and top arms to the water nozzles. Pipes 50 are connected together at the joint between the arms in a conventional manner by swivel joints (not shown). As best seen in Figures 2 and 3, a water supply pipe 43 is provided beneath the chassis of the vehicle and is connected by means of pipe swivel 42, vertical pipe 41 and water pipe T 44 to the water pipes 50 at the lower end of the bottom arm. When the vehicle arrives at the site of a fire, connections are first made for supplying water from a pumper to the supply pipe 43 (column 6, lines 67-68).

Ronan discloses an apparatus for cleaning an oil spill off of a beach. The Ronan apparatus comprises a barge 50 having submersible pumps 54 that pump sea water from the sea, heaters 66 for heating the sea water, an articulated boom structure 80 comprising first, second and third arm sections, and a sprayer head 81 at the distal end of the boom structure. In use, heated water is delivered to an oil fouled area of the beach to wash the oil into the sea, where it is contained by containment booms 100, 102, 105 and recovered by oil skimmers 162.

William relates to a method of extinguishing tank fires using foam. The method of Williams comprises "empirically

determining a footprint for a plurality of nozzles and configuring and aiming nozzles with respect to a tank such that predicted footprint and foam run would cover a tank surface with foam" (abstract). Of particular interest to the examiner is the following discussion found in the "**BACKGROUND**" section of William's specification:

> The past 18 years has witnessed several changes in the fire fighting industry. Foam delivery nozzles have enlarged their capacity from 500-1,000 gpm to 6,000-10,000 gpm, or higher. Fire hoses have increased in size from 2½" diameters to 5"-10" diameters. Foam pumper capacity has gone from 1,000 gpm to 2,500-6,000 gpm. Importantly, storage tanks for flammable and combustible liquids have increased in size dramatically from 125-150 feet diameter to 300-345 feet diameters. [Column 1, lines 12-20.]

Thorton-Trump discloses a deicer truck for deicing aircraft. The truck includes an articulated arm assembly having a spray head 92 at the distal end thereof for delivering deicer fluid to a selected location. Of interest to the examiner are the deicer fluid storage tanks 36 and 37 mounted on the truck. With reference to Figures 1 and 2, Thorton-Trump states at column 3, lines 50-56, that "[t]ank **36** sits immediately behind the crew compartment **14** . . . . Tank **37** sits immediately behind tank **36**

. . . . Each tank **36** and **37** has a separate pump **36***a*, **37***a* for pumping fluid therefrom, the pumps being accessible from the crew compartment **14**."[2]

In support of the rejection of claims 1-23 under 35 U.S.C. § 103(a), the examiner concedes (answer, page 4) that Krynytzky does not disclose (1) a conveying pipeline having an inside diameter of at least about six inches, (2) a throughput capacity for the pipeline of at least about 3,000 gallons per minute, (3) a boom arm comprising at least three boom sections, and (4) pump means supported by the vehicle chassis. In addition, since Krynytzky is silent as to the pump capacity of the "pumper" mentioned in passing at column 6, lines 67-68, it is also clear that Krynytzky does not disclose (5) any of the specific pump characteristics called for in the appealed claims.[3] To account

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[2]Figure 2 of Thorton-Trump contains an obvious error in that the reference numerals 36 and 37 appear twice. Consistent with column 3, lines 48-56, of the specification, it reasonably appears that the dashed line rectangular objects denominated 36 and 37 within work space 23 of crew compartment 14 should be labeled 36a and 37a, respectively.

[3]For example, independent claim 1 calls for a pump means for pumping the quenching agent to the nozzle "at a turbulent flow rate of at least about 3,000 gallons per minute when a pump discharge pressure is 150 pounds per square inch," independent claim 13 calls for a pump means for delivering the quenching agent to the proximal end of the conveying pipeline at a pump discharge pressure and flow rate "which generates a turbulent

for these differences, the examiner takes the position that it would have been obvious to one of ordinary skill in the art "to incorporate the capacity of the pump, nozzle and hose (interpreted as supply lines) as disclosed by Williams to the device of Krynytzky et al. to combat large fires" (answer, page 4), and that it also would have been obvious "to incorporate the third boom section, the third actuator assembly, and the third pipe section of Ronan et al. to the device of Krynytzky et al. to better articulate the nozzle" (answer, page 5), and that it further would have been obvious "to mount a tank and pump on the chassis of Krynytzky et al. as taught by Thorton-Trump to eliminate the need for a separate pumper, therefore, enabling independent operation of the fire fighting system of Krynytzky et al." (answer, page 5). In addition, the examiner considers (answer, page 4) that operation of the above modified device of Krynytzky would inherently result in turbulent flow of the quenching agent.

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quenching agent volumetric flow rate of about 5,000 gallons per minute through the conveying pipeline," and independent claim 17 calls for the step of operating the pump to pump the quenching agent to the nozzle "at a pump discharge pressure of 150 pounds per square inch and through the conveying pipeline at a turbulent flow rate of at least about 3,000 gallons per minute."

Our court of review indicated in *In re Fritch*, 972 F.2d 1260, 1266 n.15, 23 USPQ2d 1780, 1783-84 n.15 (Fed. Cir. 1992), that it is impermissible to use the claimed invention as an instruction manual or "template" to piece together isolated disclosures and teachings of the prior art so that the claimed invention is rendered obvious. That court has also cautioned against focusing on the obviousness of the differences between the claimed invention and the prior art rather than on the obviousness of the claimed invention as a whole as Section 103 requires. *See, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc.,* 802 F.2d 1367, 1383, 231 USPQ 81, 93 (Fed. Cir. 1986), *cert. denied,* 480 USPQ 947 (1987). In the present instance, we think that the examiner has lost sight of the claimed invention as a whole and has improperly focused upon the supposed obviousness of the differences between the claimed invention and the prior art cited against the claims. In particular, we share appellants' view as expressed on page 15 of the brief that the examiner's reliance on the individual characteristics of nozzles, fire hoses, and pumps broadly set forth in the background section of the Williams specification is misplaced. Like appellants, we consider that there is no basis for concluding that characteristics for fire hoses, as per

Krynytzky's disclosure, can be translated into capabilities for a complex pipeline system of the type utilized by Krynytzky, which would reasonably appear to have different fluid flow concerns from fire hoses.

Since we have determined that the teachings and suggestions found collectively in Krynytzky, Ronan, Williams and Thorton-Trump would not have made the subject matter as a whole of independent claims 1, 13 and 17 obvious to one of ordinary skill in the art at the time of appellants' invention, we cannot sustain the examiner's rejection under 35 U.S.C. § 103(a) of those claims, or claims 2-12, 14-16 and 18-23 that depend therefrom.

In accordance with the foregoing, the decision of the examiner finally rejecting claim 1-23 of the present application under 35 U.S.C. § 103(a) is reversed.

REVERSED

LAWRENCE J. STAAB Administrative Patent Judge	)	
JOHN P. MCQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

LJS/hh

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