

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ACCO BRANDS CORPORATION,  
Petitioner,

v.

FELLOWES, INC.,  
Patent Owner.

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Case IPR2013-00566  
Patent 8,464,767 B2

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Before JOSIAH C. COCKS, BENJAMIN D. M. WOOD, and  
RICHARD E. RICE, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

Petitioner, ACCO Brands Corporation (“ACCO”), filed a Petition (“Pet.”) requesting *inter partes* review of claims 1, 2, 4–24, and 26–45 of U.S. Patent No. 8,464,767 (“the ’767 patent”). Paper 2. Patent Owner, Fellowes, Inc. (“Fellowes”), filed a Patent Owner Preliminary Response. Paper 6. The panel determined that the information presented in the Petition demonstrated that there was a reasonable likelihood that ACCO would prevail in challenging claims 1, 2, 4–24, and 26–45 as unpatentable under 35 U.S.C. § 103. Paper 8, “Decision.” Pursuant to 35 U.S.C. § 314, the panel instituted this proceeding on February 21, 2014, as to those claims of the ’767 patent. In that regard, the panel instituted an *inter partes* review on the following grounds: (1) Claims 1, 2, 4–7, 14–16, 22–24, 26–30, 34, 38, and 42 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries<sup>1</sup>; (2) Claims 8–12, 18–20, 31–33, 35–37, 39–41, and 43–45 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and Ricoh<sup>2</sup>; and (3) Claims 13, 17, and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and JP ’445<sup>3</sup>. Decision 22.

During the course of this proceeding, Fellowes timely filed unredacted and redacted versions of a Patent Owner Response (Papers 24 and 25, “PO Resp.”), along with two unopposed Motions to Seal (Papers 22 and 28) and a default Protective Order (Ex. 1018). ACCO timely filed unredacted and redacted versions of a Petitioner Reply to Patent Owner Response (Papers 30

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<sup>1</sup> US 7,624,938 B2, issued Dec. 1, 2009 (Ex. 1004).

<sup>2</sup> JP H07-299377, published Nov. 14, 1995 (Ex. 1014) (English translation, Ex. 1006).

<sup>3</sup> JP S57-70445, published Apr. 28, 1982 (Ex. 1015) (English translation, Ex. 1007).

and 31, “Pet. Reply”), along with a Motion to Seal (Paper 29), and associated those filings with the previously filed default Protective Order (Ex. 1018).

Oral hearing was conducted on October 23, 2014. A transcript of the oral hearing is included in the record. Paper 36 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of claims 1, 2, 4–9, 11–24, and 26–45 of the ’767 patent.<sup>4</sup> For the reasons discussed below, ACCO has demonstrated by a preponderance of the evidence that claims 1, 2, 4–9, 11–24, and 26–45 are unpatentable under 35 U.S.C. § 103(a).

#### A. *Related Matters*

ACCO indicates that the ’767 patent is involved in ongoing lawsuits in the United States District Court for the Northern District of Illinois, Eastern Division, between ACCO and Fellowes (Civil Action Nos. 1:10-CV07587 and 1:11-CV-08148). Pet. 2.

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<sup>4</sup> Fellowes pointed out in its briefings that claim 10 depends from claim 3, which ACCO did not challenge as a part of this *inter partes* review proceeding. PO Resp. 20 n.2. During oral argument, ACCO informed the Board that the inclusion of claim 10 as a part of its Petition was a mistake, and that the claim has not been challenged. Tr. 29. Accordingly, claim 10 is not regarded as a challenged claim in this *inter partes* review proceeding. The portion of the Decision instituting trial (Paper 8) with respect to claim 10 hereby is vacated.

*B. The '767 Patent (Ex. 1001)*

The '767 patent summarizes its disclosed invention as “a shredder that does not jam as a result of too many papers, or an article that is too thick, being fed into the shredder.” Ex. 1001, 1:65–67. Figure 2 of the '767 patent is reproduced on the right and illustrates an exploded perspective view of a shredder according to the invention. *Id.* at 3:29–30. As shown in Figure 2, shredder 10 includes housing 14 for housing shredding mechanism 16, and which sits atop waste container 12. *Id.* at 3:49–57. Top wall 24 of housing 14 incorporates “throat” 36, which receives paper and articles for shredding by cutter elements that form part of shredding mechanism 16. *Id.* at 4:52–60.

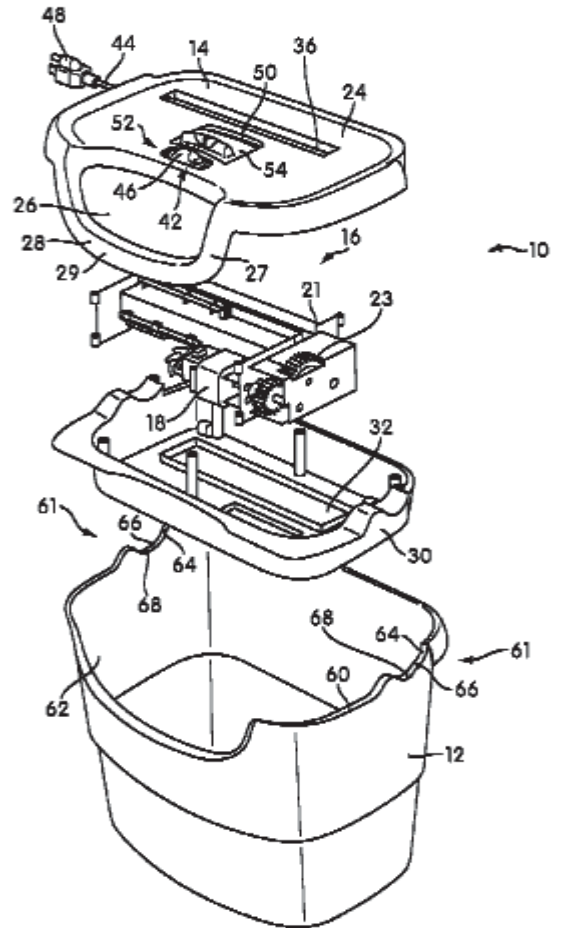


FIG. 2

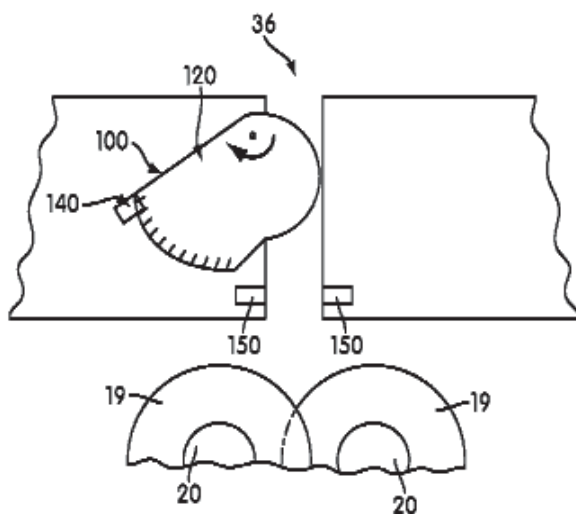


FIG. 3

Figure 3 is reproduced on the left and is a schematic illustration of portions of the shredder contained in housing 14. *Id.* at 3:31–33. As depicted in Figure 3, detector 100 is positioned to detect the thickness of an article that is placed in throat 36. *Id.* at 6:26–

28. The shredder also incorporates infrared sensor 150 that senses when an article is passing through a lower portion of throat 36, and cutter elements 19 mounted on parallel rotating shafts 20. *Id.* at 4:14–16, 6:30–31. Motor 18 (shown in figure 2) drives shafts 20 and cutter elements 19 to shred the article. *Id.* at 4:16–17, 6:30–38. The '767 patent further explains the following in connection with the function of detector 100:

[I]f the detector **100** detects that the thickness of the article that has entered the throat is too thick for the capacity of the shredder mechanism **16** (i.e., above a predetermined maximum thickness threshold), the shredder mechanism **16** may not operate, even though the infrared sensor **150** has detected the presence of an article.

*Id.* at 6:40–45.

In addition to the above-noted “predetermined maximum thickness threshold,” the '767 patent describes other “thresholds” that aid in reducing the propensity for jamming of the shredder. In particular, and by way of example, the '767 patent describes a “flutter threshold” that operates to prevent controller 200 from shutting off motor 18 unnecessarily, in the event that an article being shredded “flutter[s] or wave[s] back and forth,” which could cause the article to appear thicker than it actually is. *Id.* at 11:34–49. To that end, the patent explains the following with respect to that “flutter threshold”:

To prevent the motor **18** from unnecessarily shutting off, a flutter threshold that is higher than the predetermined maximum thickness threshold is set. For example, the flutter threshold may be a fixed percentage or value higher than the predetermined maximum thickness threshold. The flutter threshold provides an additional tolerance to the thickness of the article, thus preventing the motor from shutting off

unnecessarily when the trailing portion of the at least one article flutters.

*Id.* at 11:49–57.

The '767 patent also describes a type of threshold characterized as a “rate threshold.” *Id.* at 12:10. That threshold is explained as follows:

As an option, a change in the thickness sensor readings may be monitored to determine whether the change in the thickness is due to a paper wrinkle or a paper fold (as can happen if the paper is fed into the throat at an angle to the proper feeding direction) or due to an insertion of an additional article in the throat after the shredding has started. This is done by filtering the input and determining whether the change in the thickness reading is rapid and hard as would be the case when an additional article is inserted, or slow and soft as would be the case when a wrinkle is developed over the time during the shred cycle. To differentiate between the two situations, the controller **200** monitors a rate of change in the detected thickness. If the rate is above a rate threshold, this generally indicates that an additional article has been inserted; and likewise if the rate is below a rate threshold, this generally indicates that the thickness change is attributable to the formation of a wrinkle or fold.

*Id.* at 11:65–12:14.

Claim 1 is illustrative, and is reproduced below:

A shredder comprising:

a housing having a throat for receiving at least one article to be shredded;

a shredder mechanism received in the housing and including an electrically powered motor and cutter elements, the shredder mechanism enabling the at least one article to be shredded to be fed into the cutter elements and the motor being

operable in a shredding direction to drive the cutter elements to shred the articles fed therein;

at least one thickness detector configured to detect a thickness of the at least one article to be shredded being received by the throat; and

a controller coupled to the motor and the at least one thickness detector for receiving an input from the at least one thickness detector,

wherein, when the at least one article is being received by the throat prior to operation of the motor, the controller either (a) operates the motor in the shredding direction to drive the cutter elements to shred the at least one article being received by the throat if the at least one thickness detector detects that the at least one article is below a predetermined maximum thickness threshold, or (b) prevents operation of the motor in the shredding direction if the at least one thickness detector detects that the at least one article to be shredded being received by the throat is violating the predetermined maximum thickness threshold,

wherein the controller monitors the input from the at least one thickness detector during operation of the motor in the shredding direction to shred the at least one article to determine whether the input from the at least one thickness detector detecting a violation of the predetermined maximum thickness threshold meets at least one criterion corresponding to an insertion of one or more additional articles, said controller performing a predetermined operation in response to determining that the at least one criterion has been met.

*Id.* at 14:34–15: 3.

## II. ANALYSIS

### A. *Claim Construction*

We construe claims in an unexpired patent by applying the broadest reasonable interpretation in light of the specification. *See* 37 C.F.R.

§ 42.100(b). Claim terms also are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). However, a “claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

In instituting trial with respect to the ’767 patent, we determined that all terms of the involved claims should be given their ordinary and customary meaning in the context of the disclosure of that patent. We made that meaning explicit for three claim terms/phrases that are common to each of independent claims 1, 15, 23, and 28. Neither party challenges any aspect of our claim constructions. Based on the entire record presented during trial, we discern no reason to alter our claim constructions in connection with this Final Written Decision. For reference, our claim constructions are reproduced in the table below:

<b>Claim Term or Phrase</b>	<b>Claim Construction</b>
“at least one criterion corresponding to an insertion of one or more additional articles”	“[T]he phrase encompasses ‘a time delay that is set when the measured thickness exceeds the predetermined maximum thickness threshold.’” Decision 10.
“controller”	“[A] ‘structure that controls components’ is the broadest reasonable meaning of the term ‘controller.’” <i>Id.</i> at 11.



Claim Term or Phrase	Claim Construction
“at least one thickness detector configured to detect a thickness of the at least one article to be shredded being received by the throat.”	“[E]ncompasses any location for the detector in which the detector may detect a thickness of the article that is received by the throat of the shredder.” <i>Id.</i> at 12.

### *B. Grounds of Unpatentability*

As noted above, there are three grounds of unpatentability involved in this *inter partes* review proceeding: (1) Claims 1, 2, 4–7, 14–16, 22–24, 26–30, 34, 38, and 42 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries; (2) Claims 8, 9, 11, 12, 18–20, 31–33, 35–37, 39–41, and 43–45 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and Ricoh; and (3) Claims 13, 17, and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and JP ’445.

We consider the respective positions of the parties in light of the record before us.

#### *1. Principles of Law*

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We also recognize

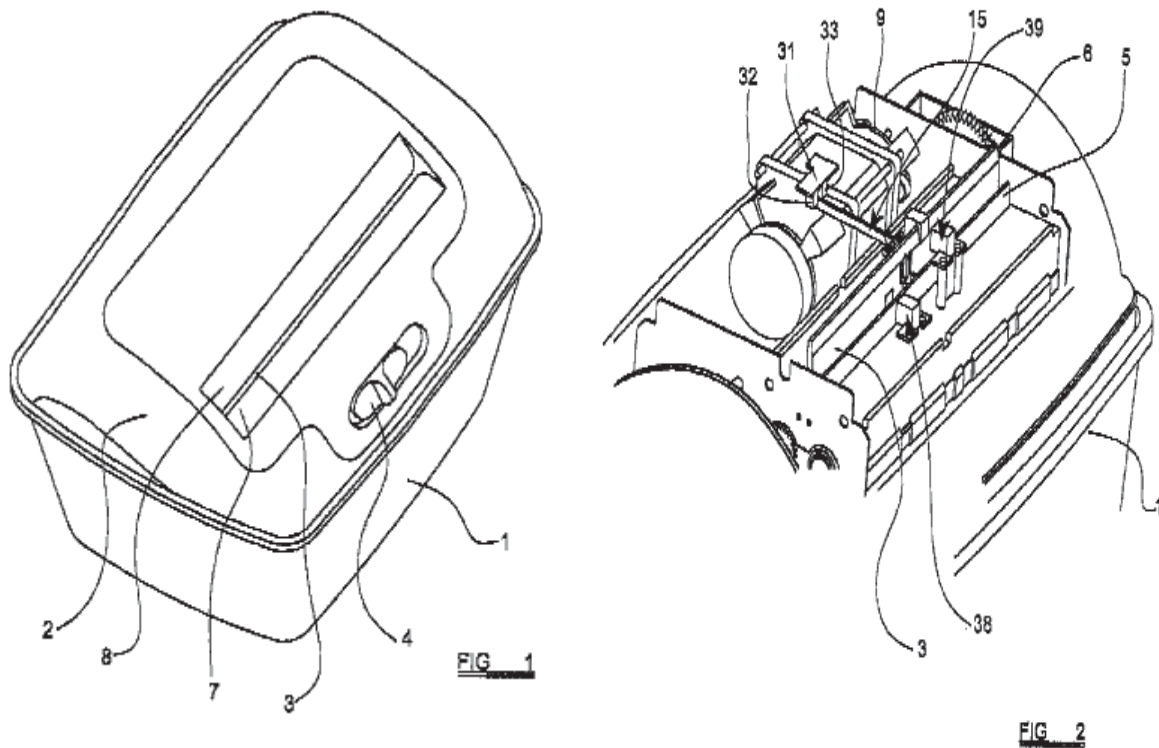
that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)).

## 2. *Level of Skill in the Art*

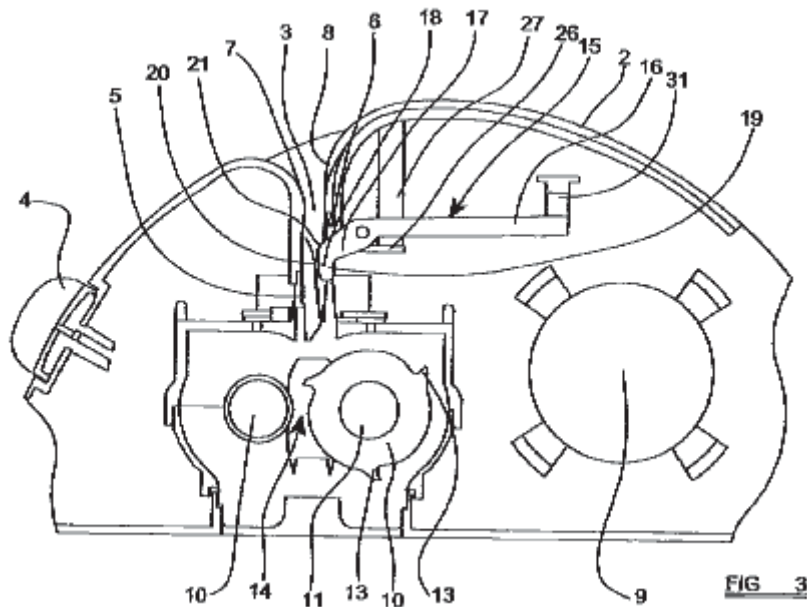
In determining the level of skill in the art, various factors may be considered, including “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). There is evidence in the record before us that reflects the knowledge level of a person with ordinary skill in the art. ACCO’s Declarant, Mr. Aries, attests that a person with ordinary skill in the art would be an individual who possesses “a degree in electrical or mechanical engineering and at least three years of work experience in the design and development of document shredders, or alternately, at least five years of work experience in designing and developing document shredders.” Ex. 1005 ¶ 3. Fellowes does not dispute Mr. Aries’s assessment of the level of ordinary skill in the art.

## 3. *Aries (Ex. 1004)*

Aries discloses a shredding machine suitable for shredding papers and the like. Ex. 1004, Abstract. Aries’s Figures 1 and 2 are reproduced below:



Figures 1 and 2 above depict perspective views of a shredding machine according to Aries's invention. *Id.* at 2:54–61. As shown in Figure 1, a shredding machine includes housing 2 containing the operative parts of a paper shredder and which sits on top of container 1. *Id.* at 3:20–23. Included in housing 2 is feed aperture 3 formed as an elongate slot to accommodate paper sheets to be shredded. *Id.* at 3:23–28. Figure 2 illustrates the shredding machine with a top cover portion of housing 2 removed. As shown in the figure, the shredder includes switch 31, characterized as a “photo-switch,” and actuating arm 15. *Id.* at 5:2–12. Aries's Figure 3 is reproduced below and illustrates a transverse cross-section view of the shredding machine shown in Figure 1:



As shown in Figure 3 above, actuating arm 15 is arranged in relation to feed slot 3 such that bearing surface 20 of the arm limits the amount of space available in the feed slot to receive paper for shredding. *Id.* at 5:40–46. By operation of pivotal movement of actuating arm 15 due to insertion of papers having a collective thickness that is greater than a predetermined maximum thickness, switch 31 is actuated to break electrical current providing power to motor 9, which, in turn, prevents operation of the cutting mechanism located below feed slot 3. *Id.* at 6:15–35.

With respect to an embodiment of a shredder depicted in Figure 8, Aries discloses that “switch 146” is “in the form of a ‘timer-switch.’” *Id.* at 8:17–31. Figure 8 is reproduced below:

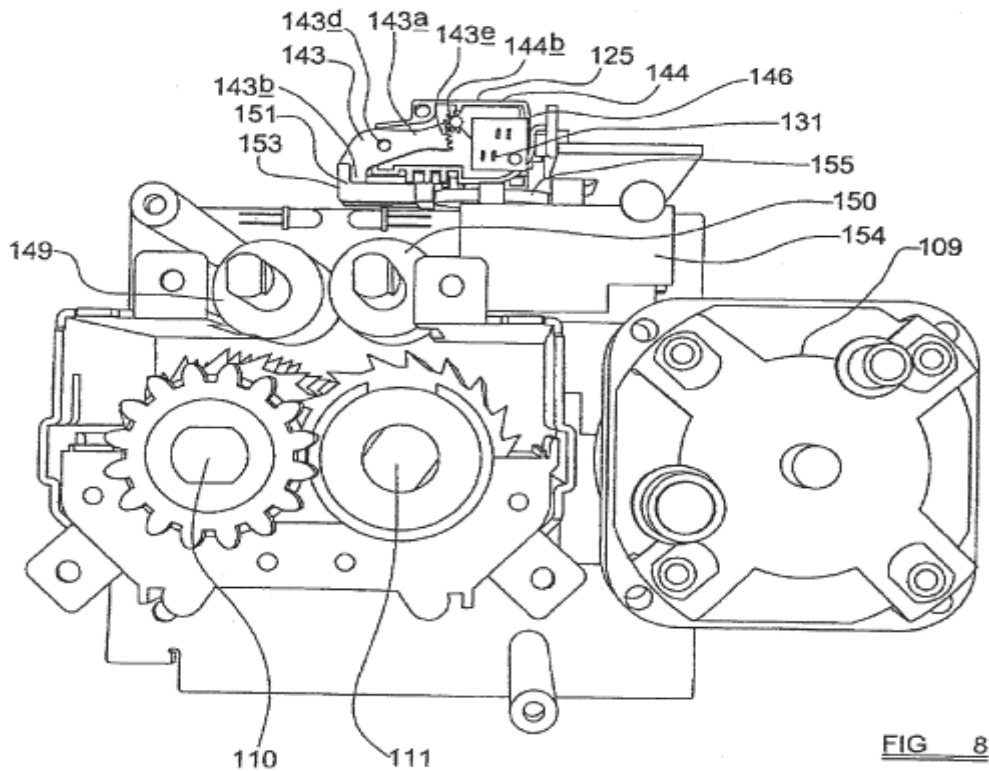


Figure 8 above depicts an alternative embodiment of a shredder mechanism according to Aries's invention. Ex. 1004, 3:9–11. In that embodiment, the shredder includes primary motor 109, arm member 144, and light source 147. *Id.* at 9:53–68. Aries explains:

Once actuated, the timer switch **146** will operate to cut power to the primary motor 109 (driving the cutting mechanism), after a predetermined period of time, unless the arm **144** is subsequently rotated back to a position whereby it no longer blocks the light source **147**, during that predetermined period of time period. In the latter case, the photo switch **146** will instead be deactivated and cutting may continue in the normal manner.

*Id.* at 9:65–10:5.

Aries further explains:

The timer switch **146** thus reduces the risk of a jam occurring due to “waving” or flapping of the sheet material, whilst nevertheless tolerating a certain degree of such “waving” or

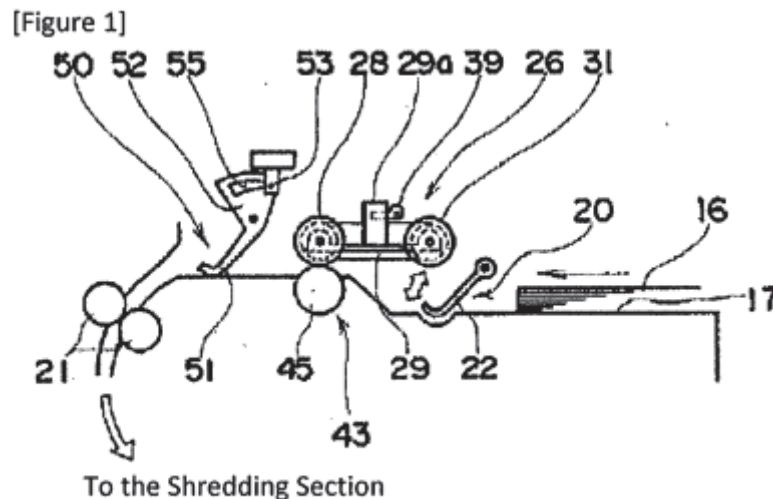
flapping, within acceptable limits and for an acceptable period of time.

*Id.* at 10:14–18.

With respect to the embodiment of Figure 8, Aries also describes that should the thickness of papers exceed an additional predetermined maximum threshold thickness that is greater than the intermediate threshold thickness, then the power to the motor is cut almost immediately. *Id.* at 10:19–31.

4. *Ricoh (Ex. 1014) (English translation, Ex. 1006)*

Ricoh is titled “Paper Feeding Device for Paper Shredders.” Ex. 1006, Title. Ricoh’s Figure 1 is reproduced below:



As shown in Figure 1 above, paper 16 is passed through first and second paper-feeding means 26, 43 via operation of control means 57 (not shown). Ex. 1006, 4. Paper-thickness detection means 50 serves to detect the thickness of paper fed through the device. *Id.*

5. *JP '455 (Ex. 1015) (English translation, Ex. 1007)*

JP '455 is directed to a “Shredder.” Ex. 1007, Title. JP '455 describes that:

conventional shredders have utilized an apparatus (for example, a circuit breaker) that detects a change in motor current and disconnects the motor from a power source when the motor current exceeds a predetermined value, as a means for protecting a driving portion against an excessive load applied to a shredding portion.

Ex. 1007, 1. JP '455 also describes that, as a part of its disclosed invention, when papers exceeding a predetermined thickness are passed through a detection portion a “warning apparatus such as a warning lamp or a warning buzzer” may be activated to notify a user of the excessive load condition. *Id.* at 2.

6. *Ground of Obviousness over Aries*

a. *ACCO's Contentions*

ACCO contends that claims 1, 2, 4–7, 14–16, 22–24, 26–30, 34, 38, and 42 the '767 patent are unpatentable as obvious over Aries. Pet. 45–50. All of those claims require that the controller monitors input from the thickness detector and, upon detecting a violation of a predetermined maximum thickness threshold, the controller determines if the input meets at least one criterion corresponding to insertion of one or more additional articles.

As discussed above, Figures 1–3 of Aries depict an embodiment of a shredder in which movement of actuating arm 15 detects if a stack of papers having a predetermined maximum thickness has been inserted into a feed slot of the shredder. If so, switch 31 is actuated so as to break electrical



current providing power to motor 9, and ceases operation of a cutting mechanism. ACCO characterizes actuating arm 15 as the at least one thickness detector that is required by the claims, and characterizes switch 31 as the required controller. Pet. 46–47. Fellowes does not dispute those characterizations. Lacking from the description of the shredder of Figures 1–3 is the feature concerning the determination of “at least one criterion corresponding to insertion of one more additional articles” upon detection that the predetermined maximum thickness threshold has been exceeded.

In accounting for the pertinent feature concerning the “criterion,” ACCO directs our attention to the embodiment of Aries’s invention depicted in Figure 8, which describes that “waving” or “flapping” of sheet material can occur that may “unacceptably increase the effective thickness of the sheet material beyond a predetermined intermediate thickness threshold thickness.” Pet. 48 (citing Ex. 1004, 9:53–10:4). As noted above, when the intermediate thickness threshold is exceeded, Aries describes that timer-switch 146 is actuated, which establishes a predetermined period of time in which power to a motor (element 109 in Figure 8) will not be cut, so as to reduce the risk of a jam occurring due to waving or flapping of the sheet material. Ex. 1004, 10:6–14.

The claims at issue require that it is upon detection of a violation of a predetermined “maximum” threshold thickness that the controller determines if the “criterion” has been met, rather than an “intermediate” threshold. In accounting for that requirement, and in assessing the teachings of Aries’s Figure 8 embodiment, ACCO contends that:

It would have been obvious to one having ordinary skill in the art to apply the time delay switch taught in the second



embodiment with the first embodiment that utilizes a single predetermined maximum thickness threshold.

Pet. 45. In support of that obviousness conclusion, ACCO relies on the guidance provided by the Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), and also on the Declaration testimony of ACCO's expert witness, Mr. Paul Aries (Ex. 1005). *Id.*

*b. Fellowes's Contentions*

Fellowes argues that lacking from Aries (as well as Ricoh and JP '445) is "a shredder having a controller that will determine whether the input from a thickness detector detecting a violation of a predetermined maximum thickness threshold meets a criterion corresponding to an insertion of additional articles." PO Resp. 19. Fellowes places emphasis on the detection of a violation of a predetermined "maximum" thickness threshold upon a determination that a "criterion" corresponding to insertion of additional articles into a shredder is met. *See generally id.* at 19–28. In that respect, Fellowes associates the actuation of a timer in connection with the violation of an "intermediate threshold thickness," which, according to Fellowes, is not a predetermined maximum thickness threshold called for by the claims. *Id.* at 24. Fellowes concludes that "[t]here is absolutely no teaching or suggestion by Aires that a time delay may be used for the situation when the predetermined maximum threshold thickness is exceeded." *Id.*

Fellowes also contends that the panel should discount the testimony of ACCO's expert witness, Mr. Aries, and accord his testimony "little or no weight." *Id.* at 29.

*c. Discussion*

In reviewing Aries's disclosures, it is clear that the reference contemplates a shredder as a part of a first embodiment of its invention that incorporates sensing or detecting elements for determining when a stack of papers with a thickness greater than a "predetermined thickness" is inserted into the shredder's feed slot. Ex. 1004, 6:15–35. Aries, thus, is understood as disclosing a predetermined maximum thickness threshold as a part of the configuration of a shredder. Indeed, there is no dispute in that regard.

As discussed above, Aries also discloses an embodiment of its invention in which timer-switch 146 is actuated in response to a violation of a "predetermined intermediate thickness threshold." Ex. 1004, 9:53–65. The actuation of timer-switch 146 occurs when that predetermined intermediate thickness threshold is violated, either through "'waving' or flapping" of sheet material in the shredder such that the sheet material appears to have a greater "effective thickness" (*id.*), or when sheet material having an actual thickness greater than the threshold is inserted (*id.* at 10:6–14). Once actuated, and after a predetermined amount of time, timer-switch 146 operates to cut power to primary motor 109, unless the switch is deactivated before the predetermined time has elapsed. *Id.* at 9:65–10:5.

The claims of the '767 patent require that input of a thickness detector "meets at least one criterion corresponding to an insertion of one or more additional articles." As discussed above in the context of claim construction, that phrase encompasses "a time delay that is set when the measured thickness exceeds the predetermined maximum thickness threshold." Aries's "predetermined amount of time" that elapses upon triggering of timer-switch 146 may occur when sheet material of excessive thickness is

inserted into Aries's shredder. We conclude that the "criterion" feature of the claims encompasses Aries's disclosure of the predetermined amount of time that a thickness threshold is exceeded before the shredder motor is shut off.

A central question in this proceeding is whether, in light of the teachings of Aries, there is sufficient evidence for concluding that a person of ordinary skill in the art would have appreciated that Aries's time delay disclosure, i.e., the pertinent "criterion," may be applied to a thickness threshold understood as a "predetermined maximum thickness threshold," rather than the intermediate thickness threshold that Aries teaches. For the reasons that follow, we answer that question in the affirmative.

There is no dispute that each of the embodiments of Aries's shredder incorporates a "predetermined maximum thickness threshold" upon violation of which the shredder ultimately ceases to operate. In one embodiment (i.e., that of Aries's Figures 1–3), there is but a single disclosed thickness threshold described. In another embodiment (i.e., that of Aries's Figure 8), there are two thickness thresholds. One such threshold is characterized as a predetermined "intermediate" thickness threshold because its level is relative to the higher predetermined "maximum" thickness threshold. *See* Ex. 1004, 10:19–22. In that embodiment, violation of the predetermined maximum thickness threshold results in "almost immediat[e]" shutdown of the shredder motor, and in that respect, is understood to act as something of a protective fail-safe should a stack of material be fed to a shredder that is outside the limits of its operational capacity. *See id.* at 10:19–31. Violation of the predetermined intermediate thickness threshold provides a more nuanced function in providing a feature to tolerate waving or flapping of

sheet material that gives the false appearance of excessive sheet thickness, but actuates a timer-switch to provide a time delay in which the shredder does not cease to operate upon alleviation of the waving or flapping. *See id.* at 9:53–10:5.

The record, thus, demonstrates it was known in the art that thickness thresholds, specifically violation thereof, may provide either of two functions: (1) almost immediate shutdown of a shredder motor; or (2) establishment of a time period, during which motor shutdown may be preempted, but after which shutdown occurs. As discussed above, it is known in the art that shredders exist with only a single thickness threshold, i.e. a predetermined maximum thickness threshold, such as the embodiment of Aries's shredders depicted in Figures 1–3. Even, however, if that threshold is regarded as one whose violation is intended to shut down the shredder almost immediately, “[i]n an obviousness analysis, it is not necessary to find precise teachings in the prior art directed to the specific subject matter claimed because inferences and creative steps that a person of ordinary skill in the art would employ can be taken into account.” *KSR*, 550 U.S. at 418. Indeed, “while an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion.” *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009).

In this case, we conclude that a person of ordinary skill in the art, who is also a person of ordinary creativity, *see KSR*, 550 U.S. at 421, would have appreciated that a given shredder mechanism with only a single

predetermined maximum thickness threshold may incorporate a time delay in response to violation of that threshold. That is a conclusion supported by the testimony of ACCO's expert, Mr. Aries. Ex. 1005 ¶ 21. Furthermore, the record reflects that for a shredder incorporating only a single predetermined maximum thickness threshold, a skilled artisan would have appreciated reasonably that there is trade-off in the selection of responses to violations of thickness thresholds. That is, although the immediate shutdown of a shredder motor may be beneficial in acting as a protective measure to prevent shredder damage, the triggering of a time delay to account for paper waving or flapping operates as a convenience to alleviate unnecessary motor shutdown. We do not discern that such selection between those two known options is the product of innovation, but is instead simply the exercise of the routine skill of an artisan.

We are cognizant of Fellowes's view that Mr. Aries's testimony should be afforded "little or no weight." PO Resp. 29. In that respect, Fellowes urges that we discount the testimony as directed to legal conclusions "based on impermissible hindsight, informed by the claimed invention." *Id.*; *see id.* at 29–40. To the extent that Mr. Aries has made legal conclusions, they have not been given any weight. We, however, do not discern that his testimony constitutes "impermissible hindsight" gleaned only from the claimed invention, and instead conclude that it is predicated on the scope and content of the prior art, and the knowledge of one of ordinary skill in the art. We, therefore, credit his testimony in that regard, and have given it appropriate weight.

Having considered the record before us, including the Petition, the parties' briefings, and the content of the prior art, we are persuaded that all

of the features of claims 1, 2, 4–7, 14–16, 22–24, 26–30, 34, 38, and 42 are accounted for based on the teachings of Aries.

*7. Ground of Obviousness over Aries and Ricoh*

ACCO contends that claims 8, 9, 11, 12, 18–20, 31–33, 35–37, 39–41, and 43–45 are unpatentable over Aries and Ricoh. Pet. 44–45, 50–51.

Those claims ultimately depend from one of independent claims 1, 15, and 28. Each of the above-noted dependent claims add features specifying that a thickness detector is a “variable thickness detector,” and a particular “sensor” or “optical sensor” is associated with a shredder. ACCO relies on Ricoh as disclosing those added features. ACCO contends that it would have been obvious to a skilled artisan to have incorporated the above-noted features of Ricoh into the shredder device of Aries, and that combining the teachings of those references “is nothing more than ‘the predictable use of prior art elements according to their established functions.’” Pet. 29–30 (quoting *KSR*, 550 U.S. at 417). ACCO also points to the Declaration testimony of Mr. Aries in support of its obviousness position. *Id.* at 30.

Fellowes does not dispute that Ricoh discloses the features added by each of claims 8, 9, 11, 12, 18–20, 31–33, 35–37, 39–41, and 43–45. Rather, Fellowes contends that “there would have been no objective reasons for one of ordinary skill in the art at the time of Patent Owner’s invention to have looked to Ricoh in order to modify the shredder of Aries.” PO Resp. 41. In that regard, Fellowes represents that Aries is directed to “a manual feed shredder,” while Ricoh is directed to “an auto-feed shredder.” *Id.* at 42. Characterizing those two shredder types as “very different,” Fellowes urges that one of ordinary skill in the art would not have combined the teachings of the two references. *Id.* at 42–43.

Even assuming that Fellowes is correct in its characterization of the shredders of Aries and Ricoh as “manual feed” and “auto-feed,” respectively, Fellowes does not explain adequately why that difference presents a dichotomy prohibiting the combination of the teachings. We do not discern that the combination proposed by ACCO requires that the particular components in question, i.e., the variable thickness detector and sensors disclosed in the Ricoh shredder, would operate in any different manner when implemented in the Aries shredder. In that regard, it is not apparent on the record that the particular sheet material feeding technique employed by a shredder would impact the operation of those particular components.

We agree with Petitioner that the combination of Ricoh and Aries discloses all of the elements of claims 8, 9, 11, 12, 18–20, 31–33, 35–37, 39–41, and 43–45. We further agree that a skilled artisan would have had reason to make the combination because it would have been nothing more than the combination of known elements, in a known way, to achieve a predictable result.

*8. Ground of Obviousness over Aries and JP '445*

ACCO contends that claims 13, 17, and 21 are unpatentable over Aries and JP '445. Pet. 44–45, 50–51. Claim 13 depends from claim 1, and claims 17 and 21 ultimately depend from claim 15. Each of claims 13 and 21 adds the following feature:

wherein the controller is also configured to monitor a motor operating condition during the operation of the motor in the shredding direction to determine whether to prevent operation of the motor in the shredding direction.

Claim 17 adds the feature “wherein the predetermined operation further comprises actuating an indicator to alert a user.”

ACCO contends that the above-noted features, although absent from Aries, were “well-known” and disclosed in JP ’445. Pet. 35. ACCO contends that it would have been obvious to a skilled artisan to have incorporated the above-noted features of JP ’445 into the shredder device of Aries “to provide additional protection against motor overload and to keep the user informed as to the reasons for motor shut-down.” *Id.* at 35–36. ACCO also contends that combining the teachings of Aries and JP ’445 results in “nothing more than ‘the predictable use of prior art elements according to their established functions.’” Pet. 36 (quoting *KSR*, 550 U.S. at 417). ACCO further points to the Declaration testimony of Mr. Aries in support of its obviousness position. *Id.* at 35–36.

Fellowes does not dispute that JP ’445 discloses the features added by claims 13, 17, and 21. Fellowes also does not dispute ACCO’s position that it would have been obvious to incorporate the pertinent features of JP ’445 into a shredder according to Aries’s invention. Rather, Fellowes simply contends that JP ’445 does not “cure the deficiencies” that Fellowes urged were present in Aries in connection with claims 1 and 15. PO Resp. 44. As discussed above, we do not agree with Fellowes with respect to those alleged deficiencies.

In light of the record before us, we do not discern that claims 13, 17, and 21 require any features beyond those disclosed in the prior art. We also are persuaded that a person of ordinary skill in the art would have had reason to combine the teachings of Aries and JP ’445.



*C. Secondary Considerations*

“Secondary considerations,” such as “commercial success,” may have relevancy in assessing the obviousness or nonobviousness of a claimed invention. *See Graham*, 383 U.S. at 17–18. In its Patent Owner Response, Fellowes argues that it has proffered evidence of commercial success that is sufficient to demonstrate the nonobviousness of the claims of the ’767 patent. PO Resp. 45–49. In support thereof, Fellowes relies on a Declaration of Tai-Hoon K. Matlin (Ex. 2016).

At the outset, we observe that the proffered evidence of sales of products, characterized by Fellowes as its “anti-jam shredders,” is represented as constituting annual gross sales revenue between 2009 and 2014. PO Resp. 47; Ex. 2028 ¶ 28. The particular sales revenue generated alone, however, tells us little with respect to any commercial success of the product. In that respect, there is no indication whether the amount of sales represented a substantial market share. The amount of revenue generated is akin to information of the number of units sold, which provides little showing of commercial success. *See In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (“This court has noted in the past that evidence related solely to the number of units sold provides a very weak showing of commercial success, if any.”).

Moreover, Fellowes, and its proffered evidence, indicates that there was a sizable “drop in revenue” in fiscal years 2011 and 2012. *See* PO Resp. 48; Ex. 2028 ¶ 30. Fellowes attempts to explain the drop in sales as being related to a dispute between Fellowes and its Chinese joint-venture partner, and that the dispute “resulted in a stoppage of manufacture for over one year for many Fellowes’[s] shredders” beginning around August 2010. PO Resp.

48. Although Fellowes may have had issues with its manufacturer that resulted in some period of stoppage, the decrease in revenue for two years of the five year period that has been offered as representative indicates significant variance in the yearly sales figures. Such variance does not lend itself readily to a conclusion that Fellowes enjoyed commercial success in the sale of its “anti-jam shredders.”

Furthermore, commercial success is relevant only if it flows from the merits of the invention claimed. *Sjolund v. Musland*, 847 F.2d 1573, 1582 (Fed. Cir. 1988). In that regard, a “nexus” is required between the merits of the claimed invention and any objective evidence of nonobviousness offered, if that evidence is to be given substantial weight en route to a conclusion on obviousness. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1539 (Fed. Cir. 1983); *see also Ormco Corp. v. Align Tech., Inc.* 463 F.3d 1299, 1311–12 (Fed. Cir. 2006) (“Evidence of commercial success, or other secondary considerations, is only significant if there is a nexus between the claimed invention and the commercial success.”).

Here, the claims of the ’767 patent require that a controller monitor a thickness detector and perform a predetermined operation “if at least one criterion corresponding to an insertion of one or more additional articles” is met. Mr. Matlin generally testifies that such a controller, and its operation, is a part of Fellowes’s shredders, but provides few specifics in that regard. Indeed, Mr. Matlin’s testimony in that respect focuses on content of figures of the ’767 patent, itself, in explaining the operation of the controller, rather than focus on the actual controllers of any of Fellowes’s shredders. *See Ex. 2028 ¶¶ 13–17*. Although Mr. Matlin generally testifies that an example Fellowes shredder “PS-79Ci” has a controller that is configured to operate as

required by the claims (*id.*), little is provided by way of support for that aspect of his testimony. To that end, it is not apparent that the testimonial evidence of Mr. Matlin demonstrates the required “nexus” between the claimed invention and the sales revenue data involving Fellowes’s “anti-jam shredders.”

In addition, “[commercial] success is relevant in the obviousness context only if there is proof that the sales were a direct result of the unique characteristics of the claimed invention—as opposed to the economic and commercial factors unrelated to the quality of the patented subject matter.” *In re Huang*, 100 F.3d at 140. In that respect, commercial factors, such as advertising, which are not related to the quality of the patent, may undermine any conclusion that commercial success is attributable to the claimed subject matter. In this case, Fellowes presents evidence that it prominently featured a promotional advertising campaign featuring a tagline “100% Jam Proof Shredders” to entice consumer sales during the above-noted 2009–2014 time period. *See* PO Resp. 47; Ex. 2028 ¶¶ 24–27; Exs. 2017–2022. Any commercial success associated with the sale of Fellowes’s shredders may have been due to the strength of that advertising campaign, rather than any features of the patented subject matter.

Lastly, “the asserted commercial success of the product must be due to the merits of the claimed invention beyond what was readily available in the prior art.” *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997). As discussed above in connection with grounds of unpatentability proposed by ACCO, all of the features of the claims of the ’767 patent were known in the prior art, and, indeed, the record is replete with prior art describing shredders that focus on preventing jams.

The record does not reflect that any commercial success attributed to Fellowes's "anti-jam" shredders is due to merits of the claimed invention of the '767 patent beyond the prior art shredders available.

For the reasons discussed above, we determine that the record before us lacks sufficient evidence in relation to asserted objective indicia of nonobviousness due to commercial success. We have considered the entirety of the evidence, both ACCO's strong evidence of obviousness, and Fellowes's purported evidence of nonobviousness. On balance, we determine that a preponderance of the evidence supports a conclusion that claims 1, 2, 4–9, 11–24, and 26–45 of the '767 patent would have been obvious over the prior art.

#### *D. Motions to Seal*

Fellowes filed unredacted and redacted versions of a Patent Owner Response (Papers 24 and 25), along with two unopposed Motions to Seal (Papers 22 and 28) and a default protective order (Ex. 1018). Fellowes seeks to seal Ex. 1016<sup>5</sup>, Ex. 2016<sup>6</sup>, and portions of its Patent Owner Response. ACCO filed unredacted and redacted versions of a Petitioner Reply to Patent Owner Response (Papers 30 and 31), along with a Motion to Seal (Paper 29), and associated those filings with the previously filed default Protective Order (Ex. 1018). ACCO seeks to seal portions of its Petitioner Reply to Patent Owner Response. All of the Motions to Seal indicate that they are unopposed.

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<sup>5</sup> Ex. 1017 is a redacted version of Ex. 1016.

<sup>6</sup> Ex. 2028 is a redacted version of Ex. 2016.

There is a strong public policy in favor of making information filed in an *inter partes* review open to the public, especially because the proceeding determines the patentability of claims in an issued patent and, therefore, affects the rights of the public. Under 35 U.S.C. § 316(a)(1) and 37 C.F.R. § 42.14, the default rule is that all papers filed in an *inter partes* review are open and available for access by the public; however, a party may file a concurrent motion to seal and the information at issue is sealed pending the outcome of the motion. It is only “confidential information” that is protected from disclosure. 35 U.S.C. § 316(a)(7); *see* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,760 (Aug. 14, 2012). The standard for granting a motion to seal is “for good cause.” 37 C.F.R. § 42.54(a). The party moving to seal bears the burden of proof in showing entitlement to the requested relief, and must explain why the information sought to be sealed constitutes confidential information. 37 C.F.R. § 42.20(c). As set forth in the Office Patent Trial Practice Guide, there is an expectation that information will be made public if identified in this Final Written Decision. 77 Fed. Reg. at 48,761.

We have reviewed the unredacted versions of the Patent Owner Response (Paper 24) and the Petitioner Reply to Patent Owner Response (Papers 30), Exhibit 1016, and Exhibit 2016. We conclude that they contain confidential business information. None of the contents of those documents that is asserted as constituting confidential business information has been identified in this Final Written Decision in reaching a determination with respect to the claims of the '767 patent. We are persuaded that good cause exists to have those documents remain under seal.

### III. CONCLUSION

ACCO has shown by a preponderance of the evidence that: (1) Claims 1, 2, 4–7, 14–16, 22–24, 26–30, 34, 38, and 42 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries; (2) Claims 8, 9, 11, 12, 18–20, 31–33, 35–37, 39–41, and 43–45 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and Ricoh; and (3) Claims 13, 17, and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over Aries and JP '445.

ACCO has informed the panel that claim 10 mistakenly was included as a part of its Petition, and that ACCO did not, and does not, challenge that claim. *See* Tr. 29. The portion of the Decision (Paper 8) instituting trial with respect to claim 10, and that portion only, is vacated.

### IV. ORDERS

After due consideration of the record before us, it is:

ORDERED that claims 1, 2, 4–9, 11–24, and 26–45 of the '767 are held unpatentable;

FURTHER ORDERED that the portion of the Decision (Paper 8) instituting trial with respect to claim 10, and that portion only, is *vacated*;

FURTHER ORDERED that Fellowes's Motions to Seal (Papers 22 and 28) and ACCO's Motion to Seal (Paper 29) are *granted*. The following documents will remain under seal: (1) the unredacted version of Fellowes's Patent Owner Response (Paper 24); (2) Exhibit 1016; (3) Exhibit 2016; and (4) the unredacted version of ACCO's Petitioner Reply to Patent Owner Response (Paper 30); and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must

comply with the notice and service requirements of 37 C.F.R. § 90.2.

Certain documents have been sealed in this proceeding, but have not been relied upon in this Final Written Decision. *See supra* Section II.D. The record will be maintained undisturbed pending the outcome of any appeal taken from this decision. At the conclusion of any appeal proceeding, or if no appeal is taken, the documents will be made public. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,760–61. Further, either party may file a motion to expunge the sealed documents from the record pursuant to 37 C.F.R. § 42.56. Any such motion will be decided after the conclusion of any appeal proceeding or the expiration of the time period for appealing.

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