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PTAB HIGHLIGHTS

New developments in post-issuance proceedings

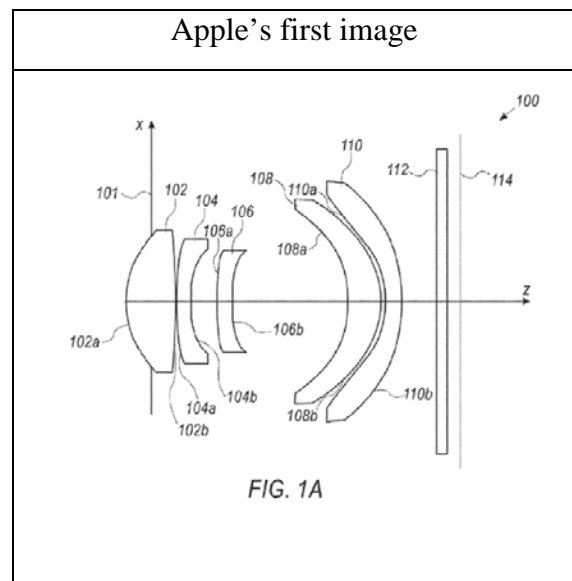
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In IPR, a Picture is Worth a Thousand Words ... or Worse than Worthless

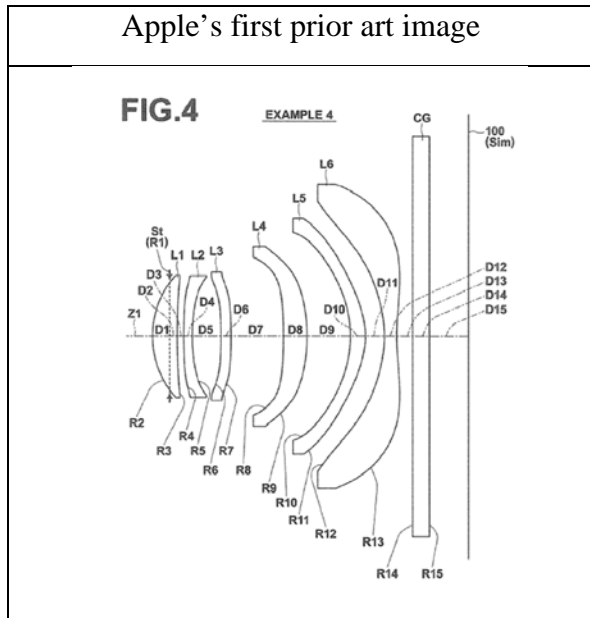
By the Banner & Witcoff PTAB Group

December 12, 2018—Lawyers experienced in patent litigation know that a picture, well explained, can be worth a thousand words. Juries and judges learn best when information is both told to them and shown to them. When experienced lawyers get into *inter partes* reviews (IPRs) at the Patent Trial and Appeal Board (PTAB), they know the same is true with PTAB judges, that a picture can be worth many words. Unfortunately, not everyone seems to get it. Some make a picture worse than worthless.

Consider some illustrations from recent IPR petitions. Here's one. It's from an Apple petition, *Apple Inc. v. Corephotonics Ltd.*, IPR2018-01356. Apple was sued by the patent owner, and went to the PTAB with a patent challenge. This is the petition's first image, showing Figure 1A from the patent. On first look, it's worthless to you, isn't it? It would certainly help to know that the IPR is about camera lenses in groups. Then you might be able to guess that this looks at five lenses in profile, meaning that it looks at them from their sides, not from their fronts or backs. The petition doesn't tell you on the pages around this image that you are in fact looking from the side, seeing five lenses; nor does it tell you anything about what any of the reference numbers or letters



indicate, what stick 112 is, to the right in the image, or why you see horizontal and vertical lines Z and X.

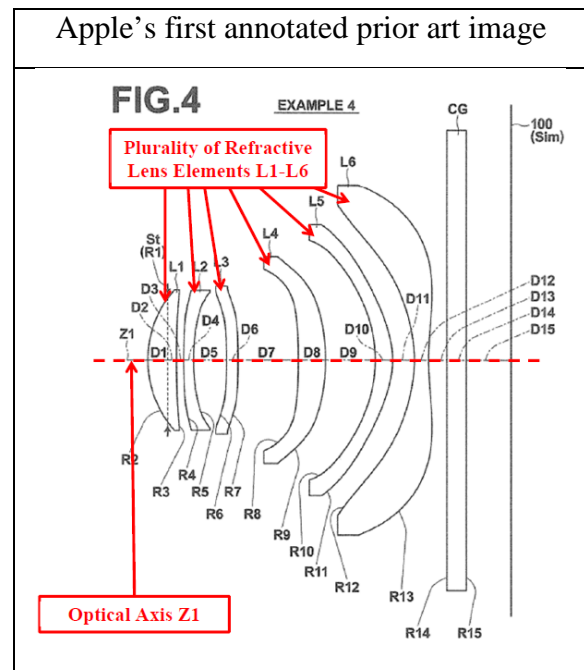


But Apple can be forgiven for its lack of explanation of this first image. It probably was left unexplained because Apple's next image is from prior art. Here it is, to the left, Fig. 4. Now you know something, don't you? Right away you know that the prior art and the challenged patent likely have very similar disclosures. You might also notice that the prior art seems to have more sophisticated groups of lenses than the challenged patent. The patent doesn't look like an advance over the prior art. Apple might also want your first look at these images to be of the images in their pristine conditions, to enhance the evenhanded-ness and credibility of Apple.

The patent in this Apple IPR has details about lens focal lengths and the like. After overviews of the challenged patent, the prior art, and other things like level of skill, the petition gets to the "mapping" of limitations of the claims of the patent to the prior art. Now obviously good illustration practices begin. See the next image, an annotated version of prior art Figure 4. Apple now labels the prior art lenses, using a text box and arrows to make it plain that you are seeing a plurality of refractive lens elements, marked L1 through L6, and the horizontal line in the figure is the optical axis, labeled Z1. The petition's text

states all this information first, just above the illustration. The annotations of the illustration repeat the information and convey it graphically. The information is conveyed twice, once in text and once in the illustration. You read it, and you see it. The color red in the annotations makes the information jump off the page.

Apple does the same when it makes use of a Table 9 from the prior art, as in the next illustration. Apple needs you to get directly and quickly to the information that the value of "f" in the table, effective focal length, for Example 4 of the prior art, is 4.00. The image points you to the information from red text in a red box to the red-outlined value in the table.



Apple's second annotated prior art image

Effective Focal Length (EFL)

TABLE 9

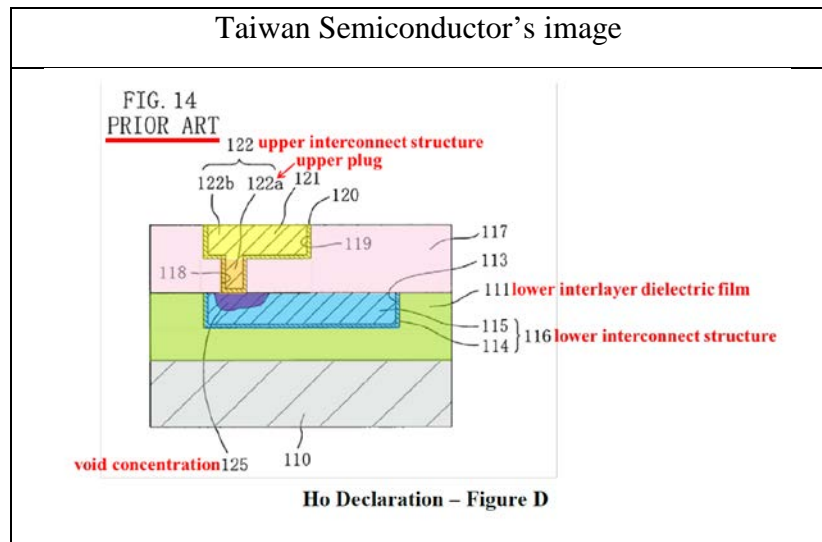
Values Related to Conditional Formulae

Formula	Condition	Example 1	Example 2	Example 3	Example 4
(1)	TL/f	0.99	0.99	0.96	0.97
(2)	f/f_1	1.79	1.74	1.87	1.60
(3)	f	4.01	4.02	3.28	4.00
(4)	f_1	2.25	2.31	1.75	2.50
(5)	D_0/f	0.006	0.008	0.015	0.019

Apple does this visual mapping along with its textual mapping as often as the claims require it—frequently. Apple includes and annotates 18 images. Prior art Figure 4 appears seven times, with new annotations with each new use. The prior art Table 9 is used and uniquely annotated four times. One other prior art table is also shown and uniquely annotated six times. Major points of the mapping of the claims to the prior art

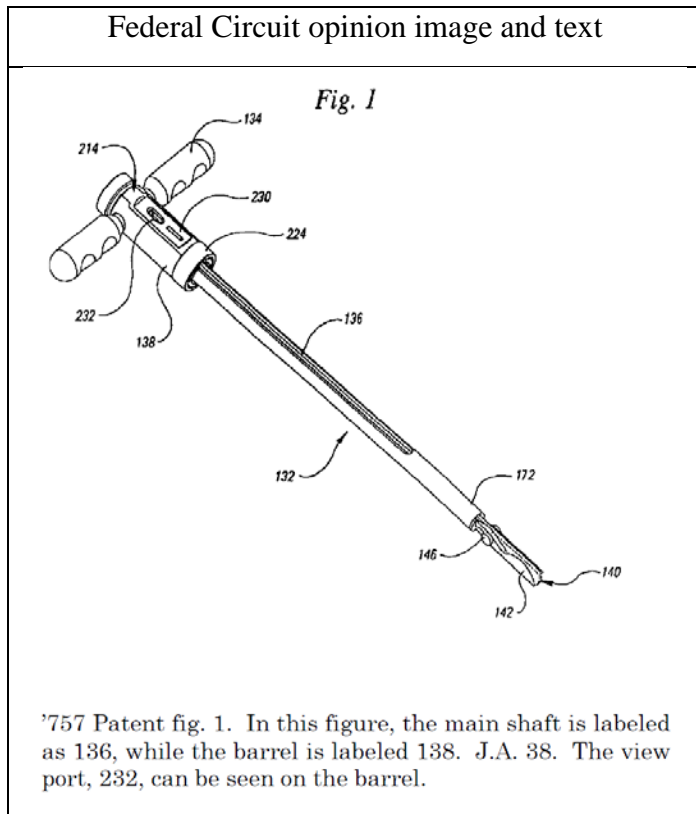
each have illustrations. All the illustrations are large, and their text in text boxes is as large in font size as the text of the petition.

Apple's use of images is commendable. It is also certainly not the only way pictures can be worth many words. Next is a more sophisticated use of images in IPR than either of the examples of good use of images above. The image is from the petition in *Taiwan Semiconductor Mfg. Co. v. Godo Kaisha IP Bridge I*, IPR2017-01861. It does a great job of showing the presence of layers in a layered



object. It's a prior art Figure 14. The prior art figure is of layers in a semiconductor, and an interconnect within the layers. The image is effective in adding unique color to each unique layer. The colors have good and pleasing contrast. And, annotations of text are included, again in red, with arrows to point to things, as needed. Notice as well the red underlining of the words "Prior Art" from the original image.

Annotation like this is effective in visual communication. Colors like this are easy to add to patent images in the Microsoft program "Paint," and "Paint-ed" images can be easily annotated in Microsoft PowerPoint. Another way to go is to "box" images in PowerPoint in partially transparent boxes with fill in selected colors.

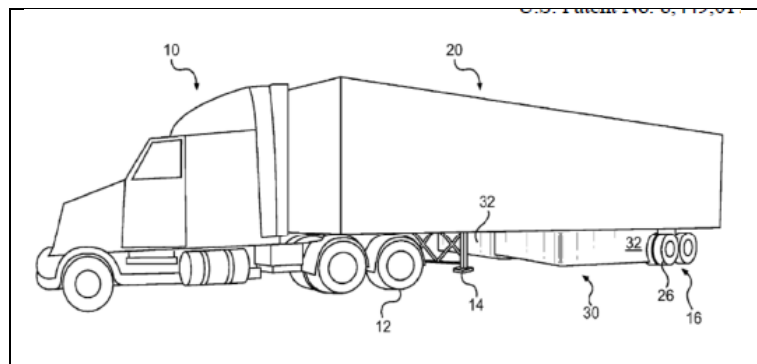


But even simple uses of images can communicate a lot of information. For example, a recent Court of Appeals for the Federal Circuit opinion has a simple use of a Figure 1 of a patent with just enough accompanying text to make the point the opinion wants to make about the patent. Here are Figure 1 and the text. This is much simpler than what Apple does. The Court cannot expect printing of its opinions in color. The Court is effective, however, in using the figure's reference numerals in the opinion's text, so shaft 136, barrel 138, and view port 232 of the image can be easily located. (It helps that the figure has only 12 reference numerals.)

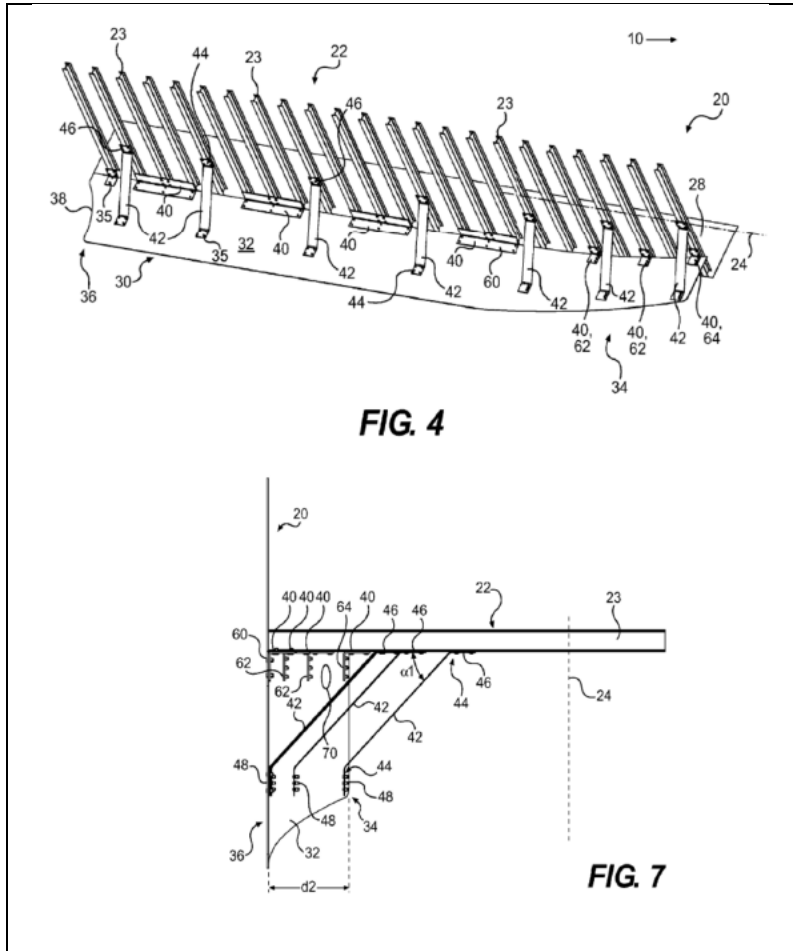
If these are all good illustrations that make pictures worth many words, then

what is a bad illustration? Here's a group of images that is not so good. Their source will remain anonymous.

These relate to an IPR, about a trailer truck skirt. The next image is the truck with skirt panel 32 under the trailer, halfway to the back. After showing us the truck, the IPR petition shows us two images of the structures that are part of the skirt. We will see those next.



The first one after the truck looks like some kind of rake, or hair comb. What is the stuff shown? We are told first in the accompanying text that the skirt panel is connected to a skirt connecting portion 48. Where is item 48 in Figure 4? I can't find it. What part of this image is the panel 32? It takes a while to find the number 32. Is this inside the skirt or outside of it? What direction is this view from, the front, back, or a side? Wasn't the skirt panel smooth in the truck image—yes, so what are all of the structures here? We aren't pointed to either item 48 or 32, or told anything to help orient us to Figure 4. It doesn't help in finding reference numbers 32 and 48 in Figure 4 that the figure has about 36 reference numbers. (For 32, look first for numbers 36 and 30 to the bottom left of Figure 4. The number 35 is to their right, and after that, 32.)



What about Figure 7? Having Figures 4 and 7 with each other does not make understanding better, it makes the situation worse. Figure 7 is from some perspective other than Figure 4, but we aren't told what perspective it is. The images are so different that it's hard to see them as related. Looking closely, three items 48 show up near the bottom of Fig. 7, just above the item 32. We were told there was a skirt connection portion 48. Why are there three of them here? Figure 7 also has the problem of about 30 reference numbers.

The images of Figures 4 and 7 in the subject IPR are not worth a thousand, or even a few, words. Textual information is not provided, or reinforced visually.

There is no ease of access provided to the images. Instead, the images are off-putting. They impede, rather than advance, understanding of what is being shown and described. Instead of being valuable, the images are worse than worthless. For some reason, some lawyers seem to forget that to get to the understanding of images, the lawyers have undertaken an extensive analysis, and we, unlike them, are new to the images.

Simple changes make Figures 4 and 7 more useful, as shown next. If Figure 7 is isolated, and first, it is much better. Some annotation is also much better. With introductory text ahead of the figure, and these changes to the figure, it's much easier to see that the skirt panel 32 is shown below portions of the side and floor of the trailer. It's braced by some diagonal struts to floor frame members. Best to say and show this, in the text and by the annotations. It helps that Figure 7 has a "normal," upright orientation.

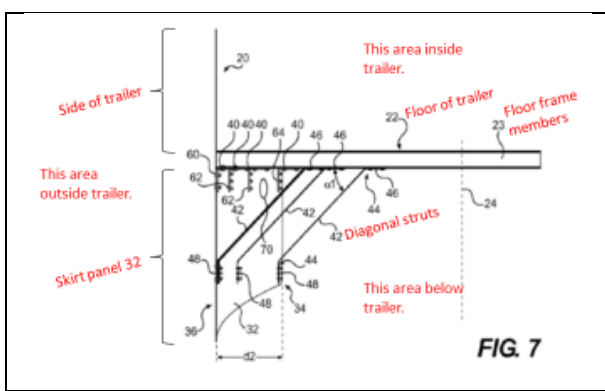
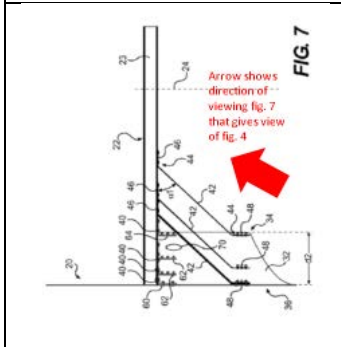
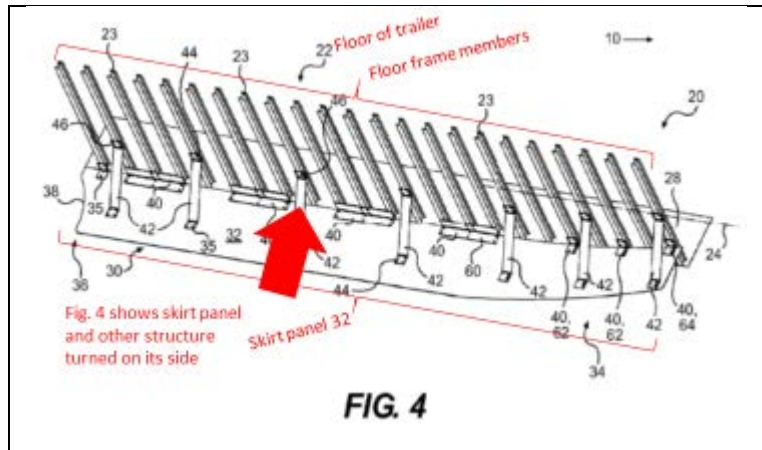


Figure 7 and the truck trailer are turned on the side, to tip the trailer onto the ground, point the top of the trailer to the left, and point the floor up.

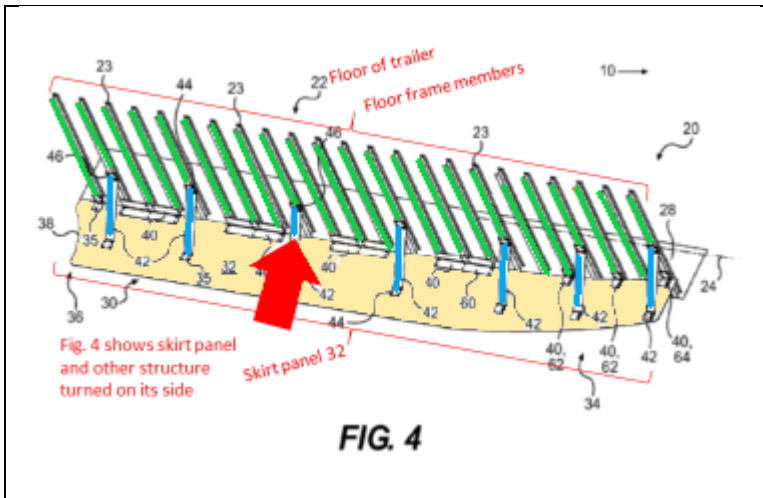


Figures 4 and 7 can next be used together, with Figure 7 used again, ahead of Figure 4. To explain the orientation of Figure 4 takes work, as it lays the truck trailer on its side on the ground. Explaining first that Figure 7 can show the truck on its side, when Figure 7 is tipped on its side, could help. In Figure 4, putting in a text box and arrow that explains the orientation of Figure 4 would help greatly when first viewing Figure 4. Text such as the following in the body of the paper being written would help further: “Figure 4 shows a view from below the truck trailer, as indicated by the arrow of viewing added to both Figures 7 and 4. In Figure 4, the skirt panel is at the bottom, as if it and parts of the truck trailer are tipped sideways onto the ground. The skirt panel

extends from lower left to lower right. The trailer floor’s frame members stick upright, tilted to the left. The diagonal struts are between the skirt panel and floor frame member, tilted to the right.”



If the text could reference colors added to Figure 4, that would be even better. Consider the



following revisions to both the text that was just suggested and Figure 4 below: “Figure 4 shows a view from below the truck trailer, as indicated by the arrow of viewing added to both Figures 7 and 4. In Figure 4, the skirt panel (yellow) is at the bottom, as if it and parts of the truck trailer are tipped sideways onto the ground. The skirt panel extends from lower left to lower right. The trailer floor’s

frame members (green) stick upright, tilted to the left, when the panel and parts are tipped onto the ground. The diagonal struts (blue) are between the skirt panel and floor frame member, tilted to the right.”

The comparison of worthwhile and less useful images is “illuminating.” (Pun intended.) A picture can be worth a thousand words, if it is well annotated and well explained. IPR papers can make the jobs of PTAB judges easier, and persuade them better, when information is both told and shown to them. Showing information persuasively, however, requires more than presenting complex patent images that are initially hard to comprehend. Images must be made accessible, i.e., able to be understood on sight, or at least once briefly explained. A minimum enhancement of images is an explanation of where parts of structures appear, as with the Federal Circuit image above. Annotations, such as text boxes with part names and arrows to the parts, are excellent. Harmonious, bright colors used in both images and text are even better.

When experienced lawyers get IPRs at the PTAB, they know that a picture can be worth many words. Unfortunately, not everyone seems to get the picture. Some make some pictures worse than worthless. Their efforts tend against persuasiveness. With a little work instead of lesser efforts, though, all can do better.

For more information on this or any other PTAB or IPR topic, please contact the author, Charles Shifley, the reviewer, Robert Resis, or any Banner & Witcoff lawyer.

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The Leahy-Smith America Invents Act established new patent post-issuance proceedings, including the inter partes review, post grant review and transitional program for covered business method patents, that offer a less costly, streamlined alternative to district court litigation. With the U.S. Patent and Trademark Office’s Patent Trial and Appeal Board conducting a large and increasing number of these proceedings, and with the law developing rapidly, Banner & Witcoff will offer frequent summaries of the board’s significant decisions and subsequent appeals at the U.S. Court of Appeals for the Federal Circuit.



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