REMARKS

Claims 1-32 are pending in the application. Claims 1-32 were rejected. Applicants respectfully request reconsideration of the rejections set forth in the Office Action dated March 28, 2007 in view of the following remarks.

Applicants thank the Examiner for the courtesy extended during the telephone interview with Applicants’ representative on May 25, 2007. During this interview, lenticular lenses and the rejections under U.S.C. §103 were discussed.

Rejections Under 35 U.S.C. §103

Claims 1-11, 14-25 and 27-32 were rejected were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,517,433 to Loose et al. (referred to herein as ‘Loose’) in view of Berkel and Clarke “Characterization and Optimization of 3D-LCD” (‘Berkel’).

Claims 12, 13 and 26 were rejected were rejected under 35 U.S.C. 103(a) as being unpatentable over Loose in view of Berkel in further view of U.S. Patent No. 5,655,961 to Acres et al. (‘Acres’).

Applicants respectfully traverse the §103 rejections. The rejections: a) fail to teach all the limitations in the claims, b) propose modifications that result in an inoperable device, and c) violate MPEP rules for the modification and combination of references.

Loose describes a gaming machine with a digital video display presented in front of mechanical reels. He laments that “the display area of reel spinning slot machines has been fairly mundane” and cites a need for an improved display area for mechanical reels (col. 1 lines 24-39). Loose thus adds a transparent video display in front of the mechanical reels to improve display of the reels (his intent).

Berkel aims to reduce Moire effects and other visual artifacts associated with a lenticular lens.

The Office Action dated November 13, 2006, concedes that Loose does not describe the lenticular lens limitations recited in the claims, and relies on a combination of Loose and Berkel...
to reject the claims. More specifically, the Office Action asserts that “it would have been obvious to use the MVL 3D-LCD as taught by Berkel as the video display for Loose’s slot machine”.

First, Berkel’s LCD is not transparent and adding it to Loose’s slot machine would completely block out Loose’s mechanical reels. At the least, this combination ruins the intent of Loose, that is, improving display of mechanical reels, by completely blocking the mechanical reels. Assuming, arguendo, that a transparent LCD is used in the combination, the combination still results in an inoperable gaming machine.

In the telephone call of May 25, 2007, the Examiner kindly clarified the rejection and combination using Loose and Berkel, and mentioned that the Berkel’s lenticular lens would be placed on the outside of the glass of display area 16, regardless of whether this placement is a) outside the glass of a transmissive display 14a as shown in Figure 2A or b) outside the glass for the virtual image of Figure 2B.

Regardless of which embodiment is used, adding a lenticular lens, particularly Berkel’s lenticular lens, results in an inoperable device. As one of skill in the art will appreciate, a lenticular lens typically has a short focal length. Berkel illustrates this in his Figure 1, where he shows light diverging away from a lenticular lens towards a viewer. While not shown, one can follow the light into the lens where it converges at at a focal point. Table 1 of Berkel (page 185) states that the focal distance of his lenticular sheet is .99 millimeters, which is usually measured from the backside of the lenticular sheet. Light modified by Berkel’s lenticular sheet must be within this focal length. Light entering Berkel’s lenticular sheet at a focal distance greater than this produces odd visual artifacts, e.g., blurring. (While Figure 1 of Berkel (page 181) shows an LCD separate from the lenticular lens, this is done in cutaway for illustration purposes.)

Adding Berkel’s lenticular lens to Loose’s gaming machine at the outside of the glass of display area 16, as proposed in the rejection, then places Loose’s mechanical reels well outside the focal length of Berkel’s lenticular lens. This distorts, blurs and reduces visibility of the mechanical reels. In other words, Berkel’s lenticular lens – improperly used in this instance because the objects that Loose wants a person to see (the mechanical reels) are well beyond the focal length of the lens – actually ends up blurring and obscuring the mechanical reels. For Fig. 2b of Loose, most of the mirror 20 and virtual image would also be beyond the focal length of the Berkel’s lenticular lens, thus blurring or distorting the image created by the bottom display 14b as well.
The proposed rejection is thus improper since it results in an inoperable device: a user can no longer clearly see the reels of Loose. As mentioned above, Loose’s intent is to bolster the visual presentation of mechanical reels in a gaming machine. Adding Berkel’s lenticular lens as proposed actually has an opposite and visually detrimental effect: it blurs and reduces visibility of the mechanical reels. Even of the leading edge of Loose’s mechanical reels is brought close to the backside of the lenticular lens, the radius of the mechanical reels are well above the .99 millimeter focal distance of Berkel’s lenticular sheet and the majority of the reels are blurred, which is still contrary to what Loose wants.

Applicants, therefore, respectfully submit that a prima facie case of obviousness has not been made. According to the Manual of Patent Examining Procedure (M.P.E.P.) § 2143:

To establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the Applicants disclosure.

In this instance, there is no reasonable expectation of success since the combination obscures and blurs visibility of the mechanical reels.

Also, MPEP §2143.01 states: “The proposed modification cannot render the prior art unsatisfactory for its intended purpose”. In this case, Loose’s intent is to improve visual perception and enjoyment of his mechanical reels. Adding the lenticular lens as asserted, however, does the opposite: it blurs and obscures a person’s view of the reels. It is respectfully submitted that a modification of a reference must not render the prior art unsatisfactory for its intended purpose.

Thus, the proposed combination would be detrimental to Loose and his gaming machine, the combination does not optically work, and the combination violates rules for the modification and combination of references. For at least these reasons, Applicants respectfully submit that the claimed invention is not obvious in view of the cited references.

Also, the proposed combination fails to teach limitations in the claims. Claim 1 recites: “said controller being programmed to receive image data relating to a combination of a
plurality of perspective views of an image, said plurality of perspective views being interlaced to form said image when displayed simultaneously”. Loose and Berkel are silent on these limitations and the Office Action has not pointed to where the art of record teaches these limitations, such as interlacing. The other independent claims include similar lenticular processing limitations that are also not taught or suggested by the art of record. Thus, the art of record, either alone or in combination, does not teach or suggest the combination of limitations now present in independent claims 1, 14, 27 and 30.

For at least these reasons, independent claims 1, 14, 27 and 30 are allowable over Loose and Berkel.

Claims 2-13, 15-26, 28-29 and 31-32 each depend either directly from independent claims 1, 14, 27 and 30, respectively, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to the independent claim. In addition, the dependent claims recite additional elements which when taken in the context of the claimed invention further patently distinguish the art of record.

Acres does not describe a lenticular lens in a gaming machine or otherwise cure the lenticular lens visibility defects in Loose and Berkel that were described above.

Withdrawal of the rejection under 35 USC §103 is therefore respectfully requested.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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