UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

MULLEN INDUSTRIES LLC,
Patent Owner.

Case IPR2025-00740
U.S. Patent No. 10,828,559 B2

PETITIONER'S PRELIMINARY REPLY[1]

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[1] A Preliminary Reply was authorized by the Board via email on August 6, 2025 for IPR2025-00737, -00738, -00739, -00740, and -00741. Substantially the same Preliminary Reply is being filed in each proceeding.

The Board should reject Patent Owner's erroneous construction limiting "**physical playfield**" to a "bounded physical play space." The "bounded" limitation is unsupported, and it is contradicted by the specification which specifically teaches embodiments that are not bounded. For the reasons stated below, the Board should not construe "physical playfield" as limited to a bounded space.

I. A "PHYSICAL PLAYFIELD" NEED NOT BE BOUNDED

Patent Owner's construction would wrongly exclude disclosed embodiments of a "physical playfield" that are not bounded, such as "the physical world" or any "physical environment": "A handheld location-based game system is provided in which a user's physical position on a **physical playfield** (e.g., **the physical world**, a physical environment, or a defined physical playfield) correlates to a video game character's location in a virtual playfield."[2] ('559, 1:57-61; *see* Pet., 5, 18.) *Kaufman v. Microsoft Corp.*, 34 F.4th 1360, 1372 (Fed. Cir. 2022) (excluding an embodiment is "rarely, if ever correct and would require highly persuasive evidentiary support"). The "bounded" limitation would also wrongly exclude a disclosed embodiment where the physical playfield is "the planet Earth"—where "the game world corresponds to an actual area of the physical world (such as the planet Earth or New York City)." ('559, 11:12-14.)

[2] All emphasis added to quoted material unless noted.

II. THE INTRINSIC RECORD DOES NOT SUPPORT PATENT OWNER

There is no merit to Patent Owner's argument that a "bounded" limitation is necessarily required by a supposed goal of improving the safety of virtual reality (VR) systems. (POPR, 7-12.) The specification and claims describe an augmented reality system—not VR—where the user can see their physical surroundings in gameplay, making a "bounded" physical playfield unnecessary. (*E.g.*, '559, 1:65-2:3, 21:45-47 (claim 1).) The specification describes other safety-related features that are recited in the claims, such as manually-defined visibility of virtual indicia. ('559, 22:39-40 (claim 16), 19:50-54.)

Patent Owner's argument that a "bounded" physical playfield "enables scaling to the virtual world, a key feature" for "different game modes and speeds" and "multi-user gameplay" (POPR, 13) likewise does not justify importing a "bounded" limitation into the claims. In fact, the independent claims do not even recite different game modes or speeds, or multi-user gameplay, and Patent Owner does not show that such features must require a "bounded" physical playfield in any event.

Patent Owner also fails to show that statements about "constructing" and "pre-scanning" a physical playfield necessarily require or result in a "bounded" physical playfield. (POPR, 18-19.) The patent makes clear that "actual playfield data may not be stored at all so that only virtual playfield data is stored." ('559, 12:27-30.) The patent also describes scanning a physical landscape during gameplay, refuting

any need for a boundary, pre-set or otherwise. ('559, 5:30-31 ("Such a process may be utilized when the landscape is being scanned as a game is playing.").)

Patent Owner next argues that the claim language "on the physical playfield" means that "there is some space in the world that is off the physical playfield." (POPR, 19-20.) But this language simply tracks the specification, which similarly recites a "physical location…on the physical playfield (e.g., the physical world…." ('559, 1:57-61; 22:1-2 (claim 1).) Even if there were some need to be able to be "off" the physical playfield (there is not), the user is "off" that playfield at least when they are not playing the game, even if the playfield is the unbounded physical world.

In sum, the patent expressly contemplates unbounded, open-world gaming and emphasizes that it is not limited to any particular disclosed embodiments. ('559, 5:30-31, 11:12-14, 21:27-30.) PO's construction should be rejected.

III. EXTRINSIC EVIDENCE DOES NOT SUPPORT PATENT OWNER

Patent Owner's cited general purpose dictionaries are irrelevant and do not consistently limit a play "field" to a bounded area. (POPR, 20.) Patent Owner also acknowledges the claimed "physical playfield" is different from a real world "field" because "the physical playfield boundaries need not be hard physical boundaries like the safety rails of the prior art." (POPR, 10.) As such, the dictionary definitions are not informative about the meaning of the claimed "playfield," especially given the broad meaning taught by the specification.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Section 42.6, that a complete copy of the attached **PETITIONER'S PRELIMINARY REPLY** is being served via electronic mail on the 13th day of August 2025, upon Patent Owner by serving Patent Owner's counsel of record in this proceeding as follows:

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