

Full Claim Set in Formal USPTO-Style Format USPTO Filing US19362415 (Priority October 20, 2024)

- 1.** (Method Claim) A computer-implemented method for performing Web4 fractional reserve banking, comprising: accepting, via one or more smart contracts, pledged collateral of any physical asset, commodity, security, contract, intangible asset, financial instrument, natural resource, property, or other Real World Asset (RWA) into one or more special custody accounts without transferring legal title; enabling fractional reserve token issuance and hypothecation under control of one or more AI Agents; and operating deposit tokens, loan tokens, and payment tokens as digital bearer instruments on a blockchain while maintaining segregated asset protections.
- 2.** The method of claim 1, wherein the one or more AI Agents are trained using Retrieval-Augmented Generation (RAG) and Large Language Model (LLM) architectures on data from IoT systems, Digital MRV systems, Internet sources, or combinations thereof.
- 3.** The method of claim 1 or 2, wherein accepting pledged collateral includes executing smart contract pledge mechanics that preserve original ownership of the RWA collateral in the special custody accounts.
- 4.** The method of any one of claims 1–3, wherein the special custody accounts are configured to provide FDIC-aligned segregation across multiple accounts.
- 5.** The method of any one of claims 1–4, wherein enabling hypothecation includes applying, under control of the one or more AI Agents, any scalable hypothecation ratio to issue additional loan tokens or value tokens while the original collateral remains in the special custody accounts.
- 6.** The method of any one of claims 1–5, further comprising disbursing interest-free personal loans or commercial loans using the issued loan tokens.
- 7.** The method of any one of claims 1–6, further comprising requiring repayment of loans in external assets or currencies different from the issued loan tokens to promote token circulation and trigger automatic minting of additional value tokens.
- 8.** The method of any one of claims 1–7, wherein operating the tokens as digital bearer instruments includes supporting burn/issue models or direct transfer models for payments and transfers on the blockchain.
- 9.** The method of any one of claims 1–8, further comprising integrating the deposit tokens, loan tokens, and payment tokens into a multi-token Web4 tokenized banking system that provides no-fee payments, staking, and yield generation.
- 10.** The method of any one of claims 1–9, further comprising performing KYC/AML verification at onboarding under control of the one or more AI Agents while maintaining user privacy during normal operations on the blockchain.
- 11.** The method of any one of claims 1–10, further comprising implementing clawback mechanisms for defaulted loans using smart contract logic.
- 12.** The method of any one of claims 1–11, further comprising enabling trading or swapping of the deposit tokens, loan tokens, or payment tokens on one or more commodity, cryptocurrency, security, or hybrid exchanges.

13. The method of any one of claims 1–12, wherein the one or more AI Agents manage yield generation or reinvestment of reserves derived from the underlying RWA collateral held in the special custody accounts.

14. The method of any one of claims 1–13, further comprising deploying the one or more AI Agents as a drop-in module into a corporate, institutional, governmental, or individual network to autonomously manage the fractional reserve banking operations.

15. The method of any one of claims 1–14, further comprising maintaining segregated asset protections and ownership rights that allow the collateral owner to withdraw the RWA collateral at any time.

This provides a **complete, logically structured, and comprehensive set of dependent claims** for Independent Claim 5 (now renumbered as Claim 1). The dependents build strong fallback protection while fully covering key aspects from the October 20, 2024 provisional, including AI Agent control, broad RWA scope, special custody accounts, pledge mechanics, hypothecation, digital bearer instruments, multi-token operations, compliance, exchange integration, yield generation, and autonomous deployment.