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(54) **LIGHTWEIGHT LED LIGHTING SYSTEMS FOR PERMANENT AND SEMI-PERMANENT MOUNTING ON ELEVATED STRUCTURES HAVING INTEGRATED SUPPORT AND THERMAL TRANSFER FEATURES**

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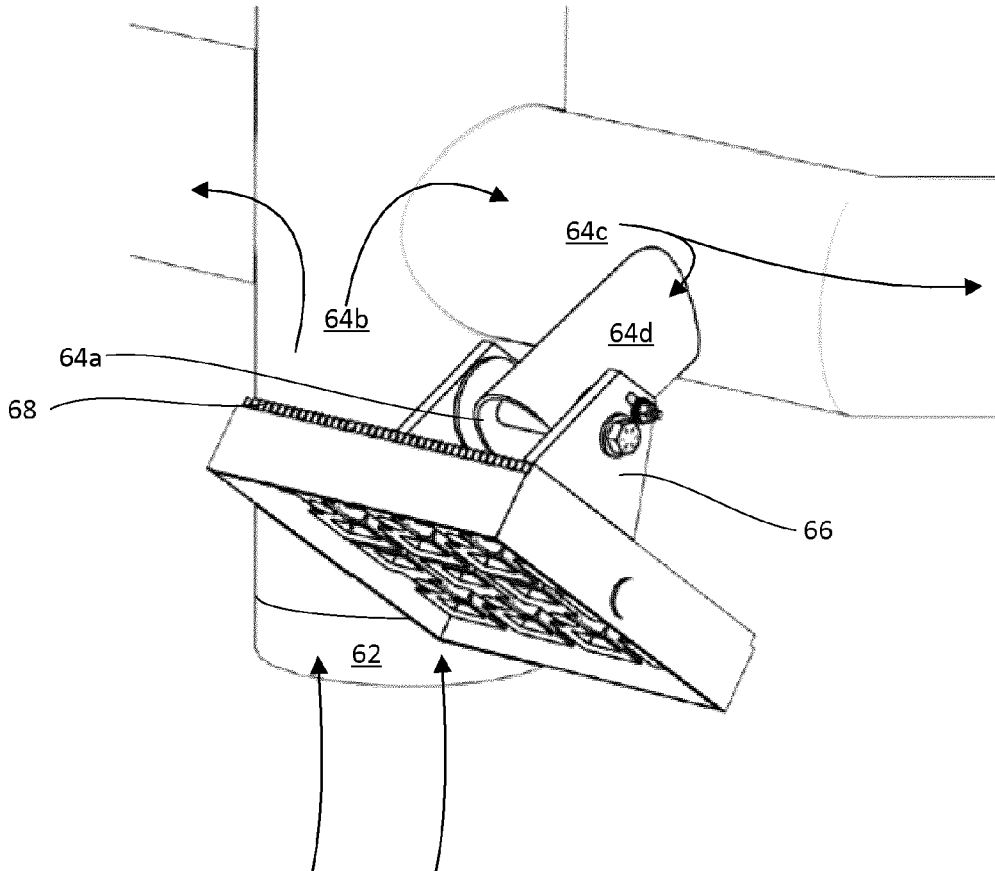
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(57) **ABSTRACT**

The invention relates to lightweight LED lighting systems for permanent and semi-permanent mounting on elevated structures, the lighting systems having integrated support and thermal transfer features. The systems are particularly suited for elevated mast systems and specifically for mast systems that are repeatedly lifted and lowered such as drilling and service rig masts. Specifically, the invention improves a) the weight/lumen ratios of LED lamp assemblies and LED lighting systems, b) the net added weight of LED lighting systems, c) the footprint of LED light systems and/or d) obviates the need for removing LED lighting systems or their sub-assemblies when transporting mast systems.



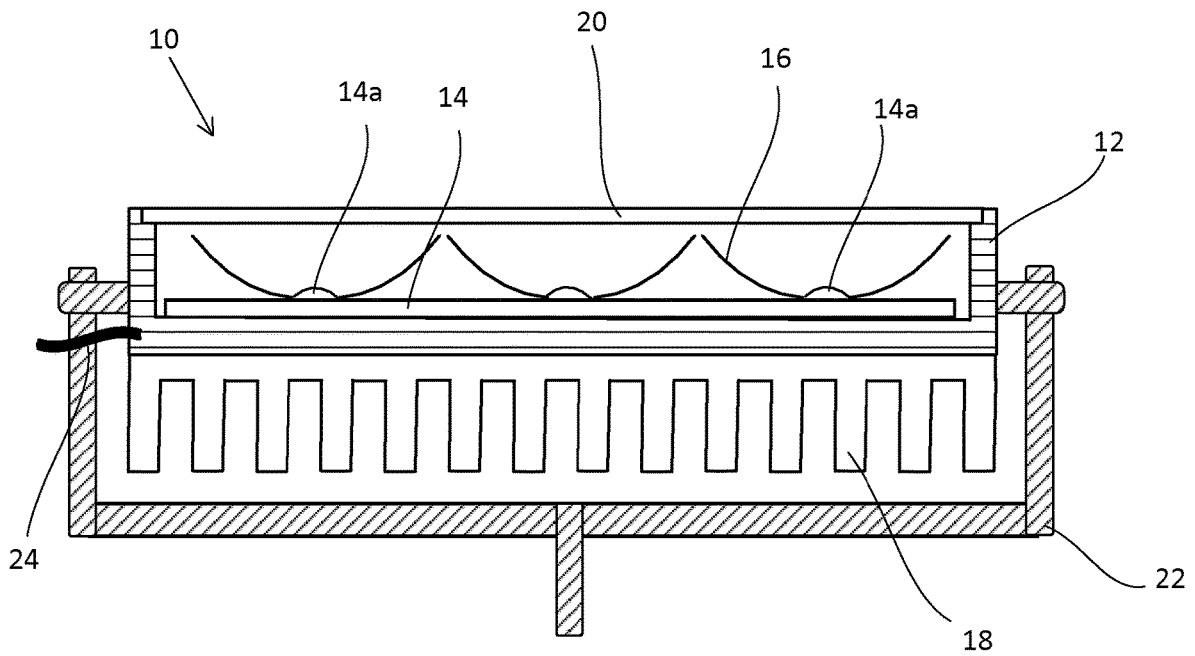


FIGURE 1A
PRIOR ART

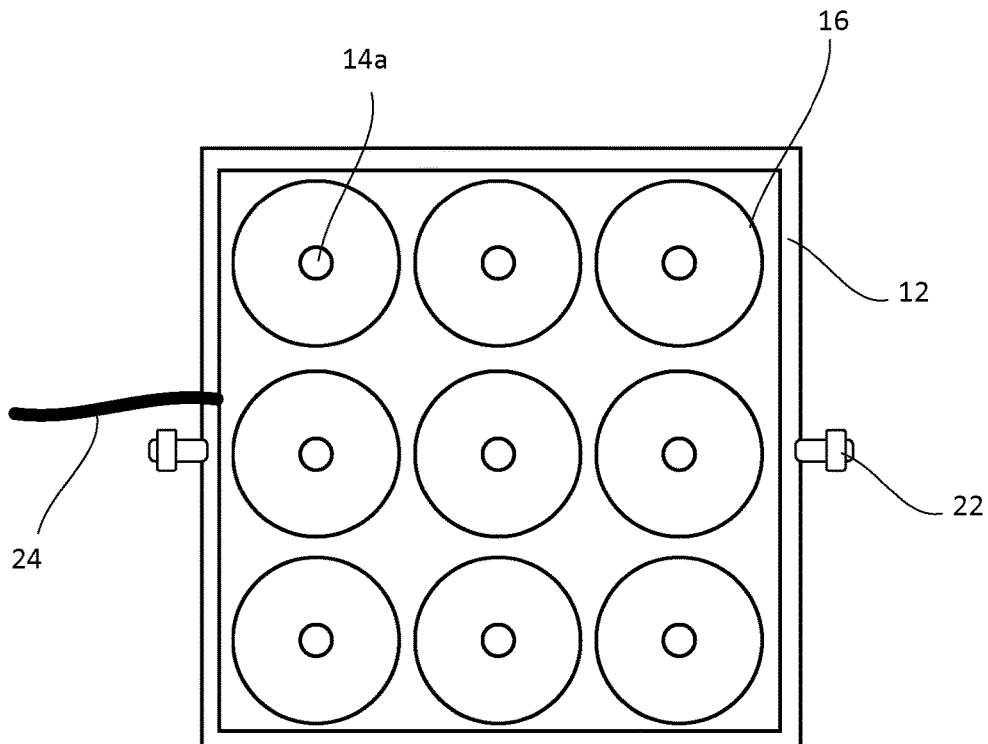
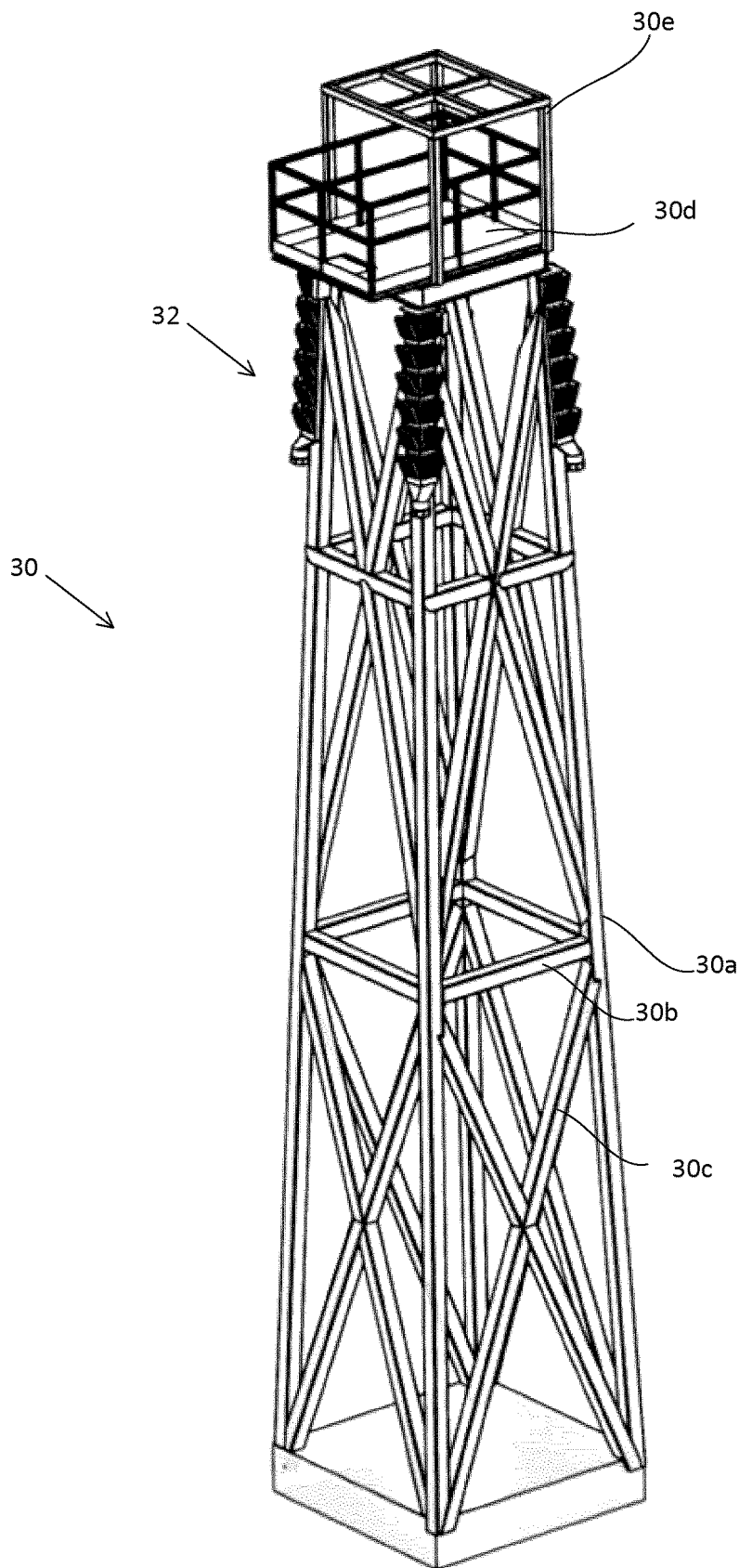


FIGURE 1B
PRIOR ART



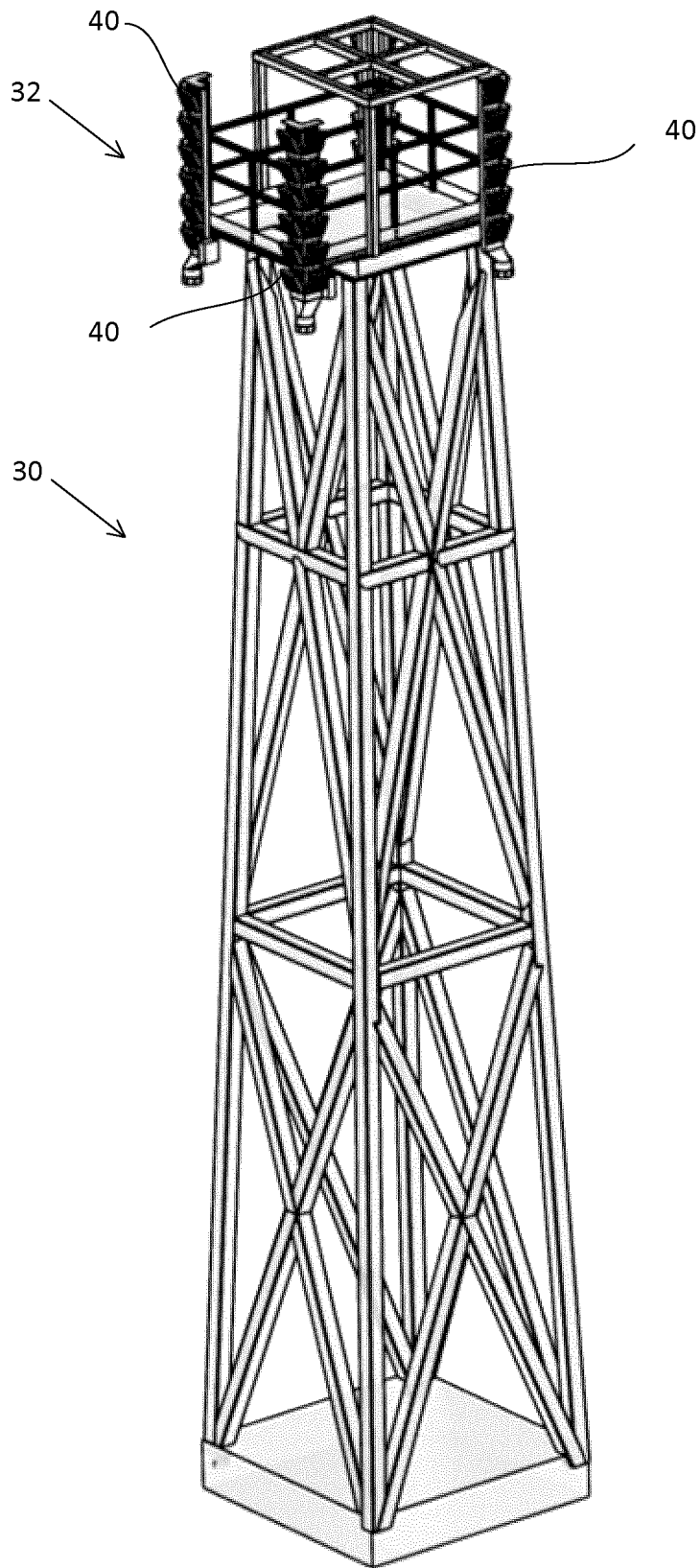


FIGURE 2A

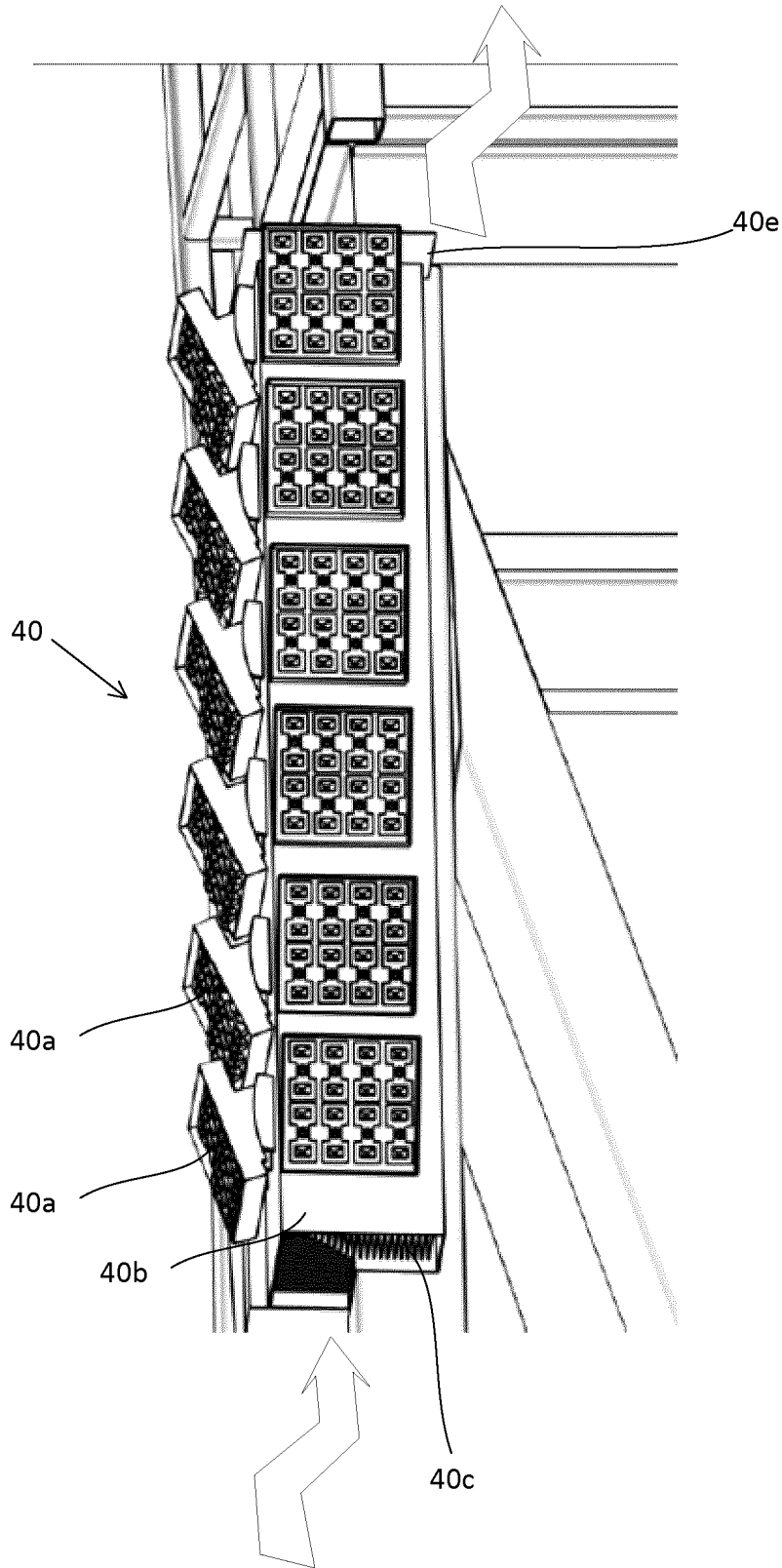


FIGURE 2B

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