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Cooper

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(54) **METAL ROOF SYSTEM**

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(58) **Field of Search** **52/302.1, 198.336, 52/302.2, 302.3, 310, 90.1, 537, 730.6, 302.6, 506.06, 508, 90.2**

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(57) **ABSTRACT**

A roof system for sloped metal roofs utilizing plywood decking, corrugated metal panels and one or more spacers disposed between the decking and metal panels for holding the metal panels vertically above the decking. The spacers have a planar top section, a planar bottom section and a center section to hold the top and bottom sections in spaced apart relation. The spacers also have one or more openings to form an airflow cavity between the decking and metal panels to permit the circulation of air therein. In the preferred embodiment, a thermal barrier layer is disposed between the spacers and the decking and the airflow cavity connects to a ridge vent located at the ridge of the roof and an eave vent at the eave of the roof. The roof system allows ambient air to be drawn into the eave vent to circulate through the airflow cavity and out the ridge vent in order to prevent thermal flexing of the metal roof and the build-up of moisture between the metal panels and decking.

20 Claims, 3 Drawing Sheets

