

**APPARATUS AND METHOD FOR DEPOSITING PARTICULATE
MATERIAL IN A COMPOSITE SUBSTRATE**

ABSTRACT

5 An apparatus and method are disclosed for forming a discrete layer of particulate material within a composite fibrous web includes a first forming chamber (22) and a supplying mechanism (30) for providing a flow of a selected fibrous material (32) into the first forming chamber (22). A second forming chamber (40) is selectively located within the first forming chamber (22) to selectively divide the flow of fibrous material
10 (32). A conveying mechanism (50) transports a particulate material (52) into the second forming chamber (40). A depositing mechanism (60) is located within the second forming chamber (40) to selectively dispense the particulate material (52). A foraminous forming layer (90) is movably disposed within the first forming chamber (22) and receives the fibrous material (32) and the particulate material (52). As the
15 foraminous forming layer (90) moves, a first fibrous layer (16) is formed on the foraminous forming layer (90), the particulate material (52) is selectively deposited on the first fibrous layer (16), and a second fibrous layer (18) is formed on the particulate material (52) thereby providing the discrete layer of particulate material (14) within the composite fibrous web (12). The depositing mechanism (60) can be configured to
20 dispense the particulate material (52) in a selected pattern. The depositing mechanism (60) can also be configured to intermittently dispense the particulate material (52) at spaced apart locations along a length of the composite fibrous web.

25 Fig. 2

This Sheet Has Been Replaced

