187 is to carry liquid to the apertures **178** from the channels **175** adjacent to each aperture **178**.

[0134] The fluid removal system of Example 4 (**FIG. 10**) was tested for fluid removal by aligning it horizontally, spilling 200 milliliters of red water on the system and briefly tipping it. In 10 minutes, 190 ml. of water was collected in the liquid reservoir **182** (a 95% removal and collection rate).

[0135] As evidenced by a comparison of the removal and collection rates of Examples 1-4, providing apertures in communication with channels and then defining cross-channels significantly increases the removal and collection rate of water disposed on a horizontal surface. The microreplicated channels capture the water and provide a means for directing it to the cross-channels, which in turn are directed to the apertures. Providing post embossed cross-channels proved to be extremely effective in acquiring and removing spills, with all other conditions being constant among the tested examples.

Example 5

[0136] A fluid removal system (another flooring system mock-up) for use in collecting, transporting and removing fluid was defined by adhering a fluid transport tape **190** (**FIG. 11**) to a substrate (not shown). The tape **190** was the same as the tape **170** of Example **2**, without the apertures therethrough, and was similarly adhered to the substrate. A suitable cover **194** (i.e., linoleum) was again laid over the fluid transport tape **190**. In this example, no apertures are provided through the fluid transport tape **190**. Rather, a drain manifold **195** was installed along one edge of the fluid transport tape **190** (in fluid communication with the channels **175** thereon) and a vacuum was applied (in direction of arrow **197**). The vacuum allows for continued desiccation of the area under the linoleum (cover **194**) and aids in collecting fluids spills.

[0137] While spill tests were conducted on the consturction of Example 5, no quantitive data was collected. It was observed, however, that the spilled liquid was aspirated under the cover toward the drain manifold for liquid movement and collection.

[0138] Group II—Passive Transport Examples

[0139] A fluid transport film adhered to a substrate was evaluated for use in collecting, transporting and removing liquids. The systems evaluated were designed for use in laptop computers, and specifically to be installed underneath the computer's keyboard to protect the hard goods of the computer from liquid spills and contamination. A side view schematic of the system is illustrated in **FIG. 12***a*. A metal keyboard support plate **202** has a top side and a plurality of legs **204** extending from a bottom side thereof. The legs **204** are in turn supported upon a substrate or computer housing **205**. A thin polyester sheet **206** extends over the top side of the metal plate **202**, between the metal plate **202** and a bottom side of the keyboard **208**.

[0140] A spill test conducted on this assembly was evaluated using absorbent paper towels. A central paper towel assembly was positioned between the substrate **205** and the metal plate **202**, such as towel assembly **210**. Side paper towel assemblies **212** and **214** were aligned at the ends of the metal plate **202**, on the substrate **205**. **FIG. 12***b* is a plan view of this arrangement, as viewed from a top surface **216** of the keyboard **208**. The top surface **216** thus defines a drop zone for liquid spills, (underneath the keyboard **208**, the polymer sheet **206** likewise has a drop or landing zone aligned for the reception of liquid from the keyboard **208** and, adjacent one or both ends of the polymer sheet **206**, liquid removal zones are defined).

Example 6

[0141] In Example 6, the polymer sheet **206** is a flat unstructured polyester sheet disposed between the bottom of the keyboard **206** and the top of the metal plate **202**. The polyester sheet had several holes pre-punched therein to accommodate attachment screws for holding the keyboard **208** to the metal support plate **202**.

Example 7

[0142] In Example 7, the polymer sheet **206** is a fluid transport film having a structured surface on its upper face. The fluid transport film was the fluid transport tape of Example 2 (and **FIG. 2***i*), with its channels longitudinally extending under the keyboard **208**. The fluid transport film also had holes pre-punched through it to accommodate the fastener screws used to connect the keyboard **208** to the metal support plate **202**.

Example 8

[0143] In Example 8, the same fluid transport film was used as the polymer sheet **206** as in Example 7, except that the fluid transport film did not have any holes pre-punched or cut in it. The screws used to hold the keyboard **208** to the metal plate **202** were screwed right through the polymer sheet **206**, which resulted in a good seal around those screws.

[0144] Spill Test

[0145] In order to evaluate the fluid removal systems of Examples 6, 7 and 8, a spill test was performed. One ounce (approximately 30 milliliters) of water bearing red food coloring was deposited on the keyboard's "G" key and allowed to sit for two minutes. The keys in the middle row of the laptop keyboard **208** were pressed and the keyboard **208** was tipped and lightly shaken. Observations were made and the amounts of fluid absorbed at the edges and underneath the keyboard **208** were recorded. The paper towels **210**, **212** and **214** were used as a way to determine where the water was going. In an actual commercial application, these towels would not be present. However, some type of collection device may be used for a computer keyboard application, such as some type of reservoir, absorbent or other object to serve as a collection device for liquid. Further, any collected liquid may be conveyed to the edge of the computer and allowed to be absorbed or to flow outside of the computer housing.

[0146] In the spill test for Example 6, most of the water collected underneath the keyboard **208** and metal plate **202**. Water poured out of the front and back of the keyboard **208** when it was tilted. Water was found on both the top and bottom of the polyester film **206**, and water was found on the top surface of the metal plate **202**.

[0147] In the spill test for Example 7, water collected on the sides and underneath of the keyboard **208** and metal plate **202**. Water was able to get underneath the metal plate **202**