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(54) **PROTECTIVE SPORTS-PAD**

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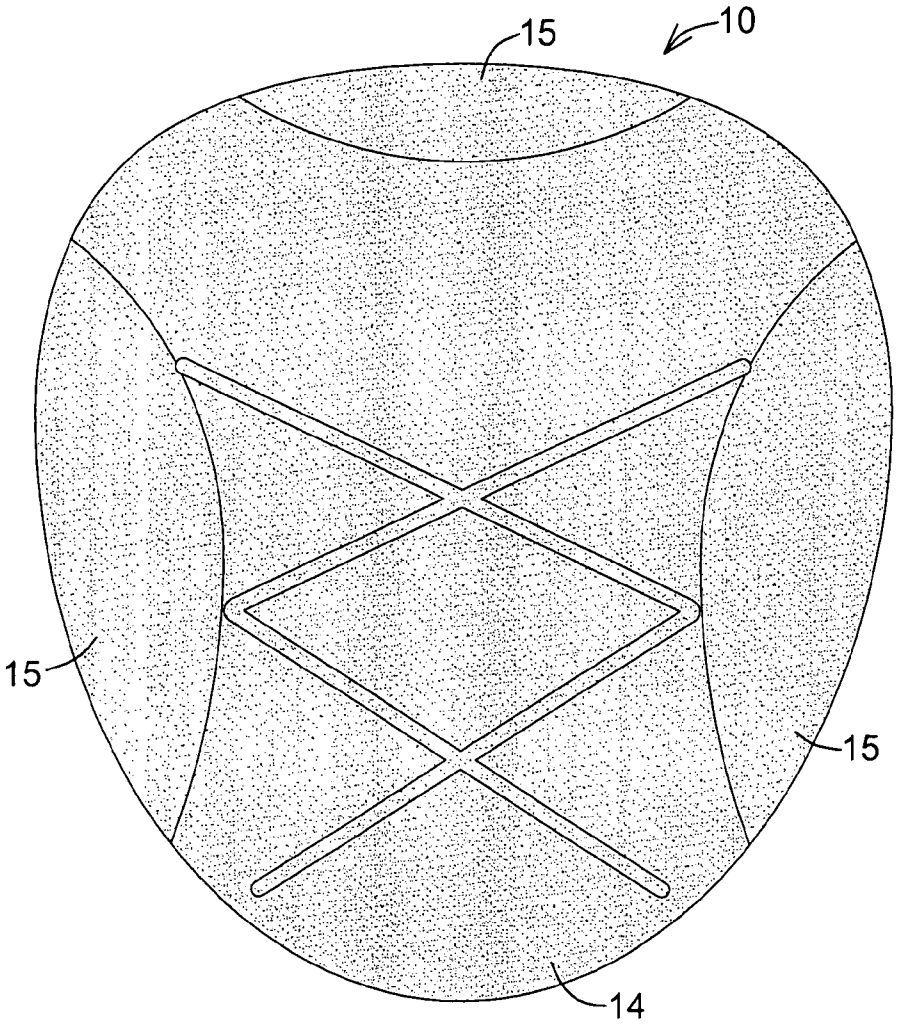
(57) **ABSTRACT**

A protective sports-pad has an outer surface, an inner surface, a recess, multiple protrusions and multiple airways. The recess is formed in the inner surface of the protective sports-pad. The protrusions are formed on and protrude from the inner surface in the recess. The airways are formed between adjacent protrusions. The airways between the protrusions allow heat to escape easily and moisture and sweat in the airways to evaporate. Consequently, the protective sports-pad does not form a breeding ground for germs, does not irritate a person's skin and is comfortable to wear.



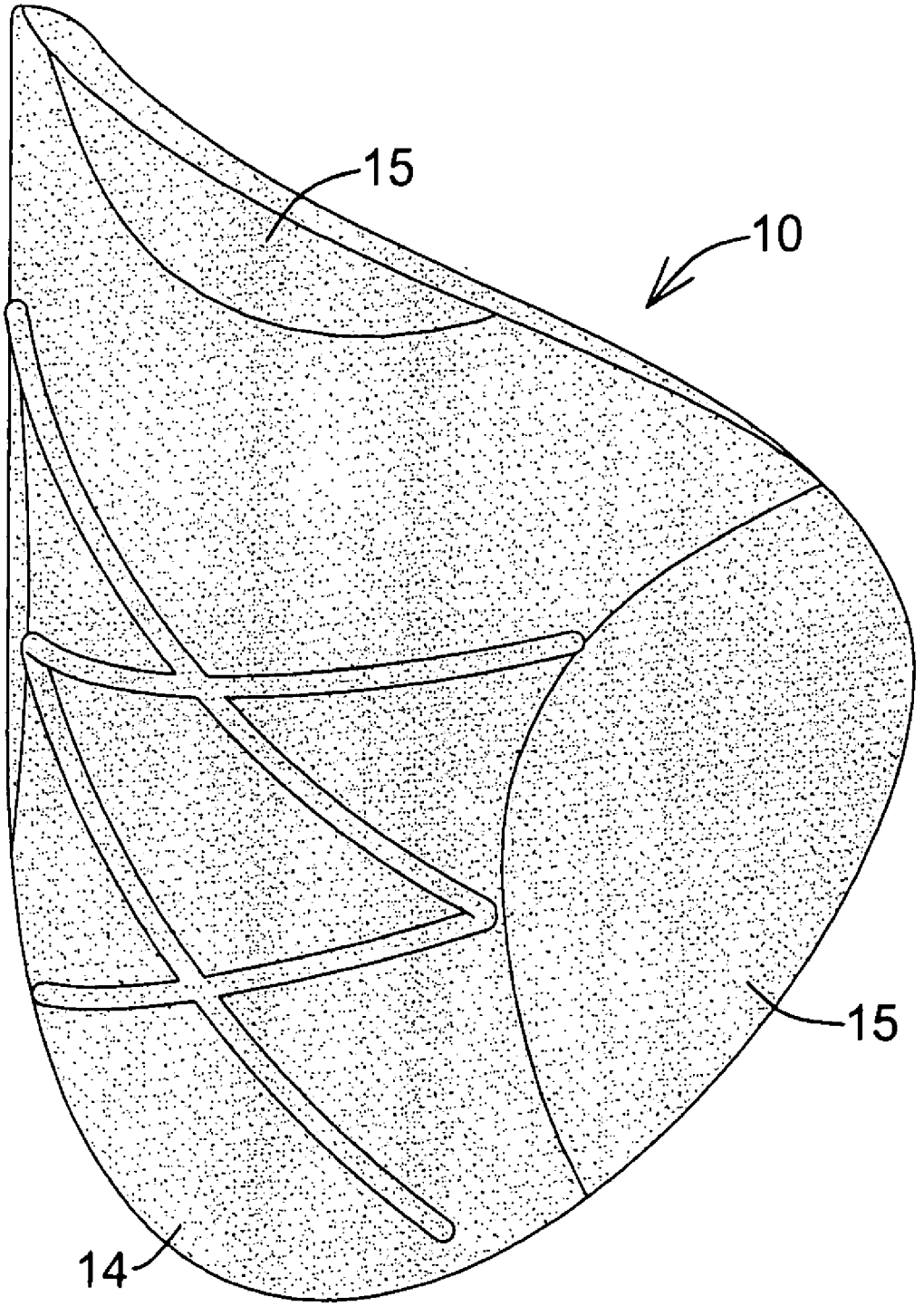


FIG. 1

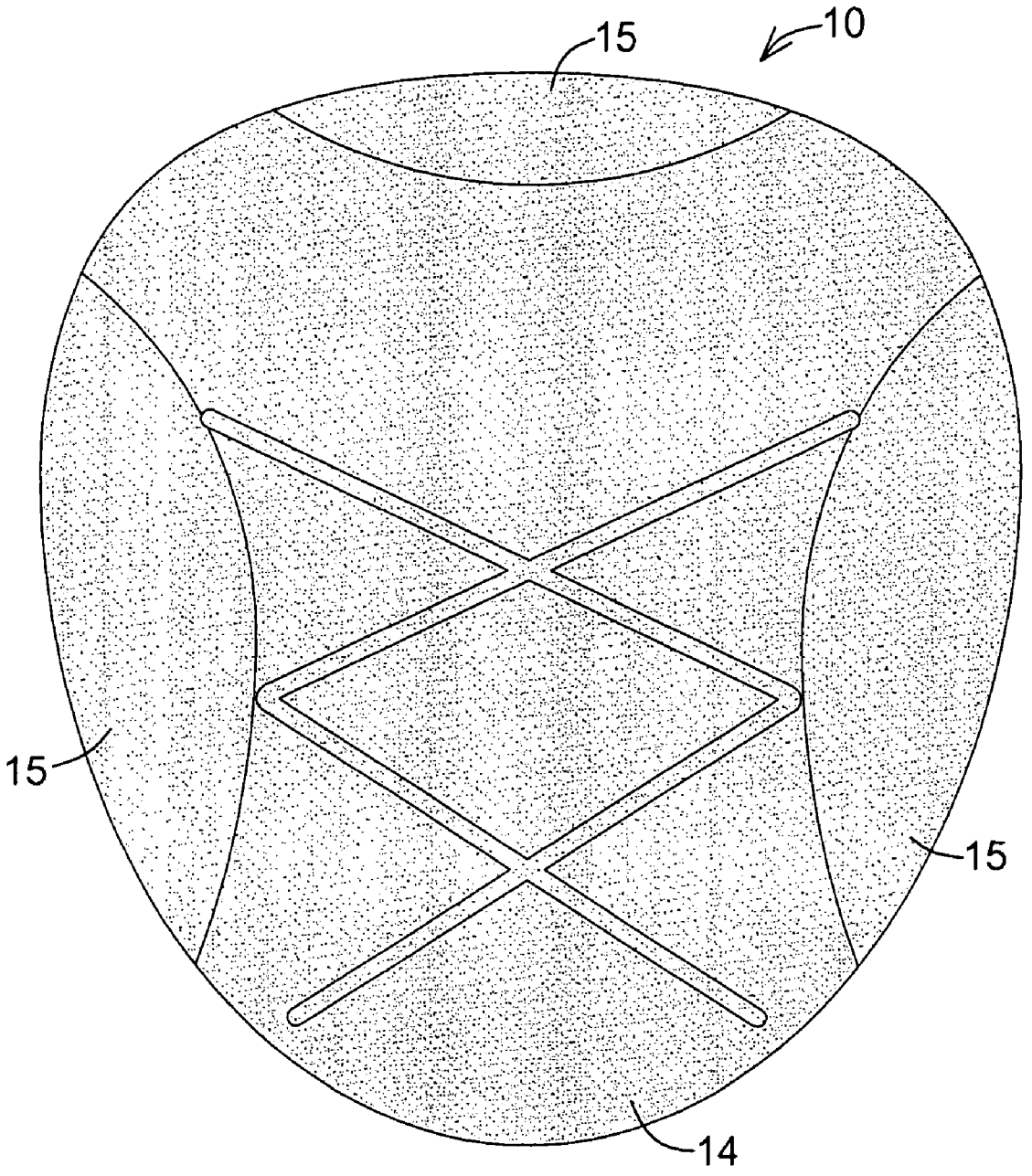


FIG. 2

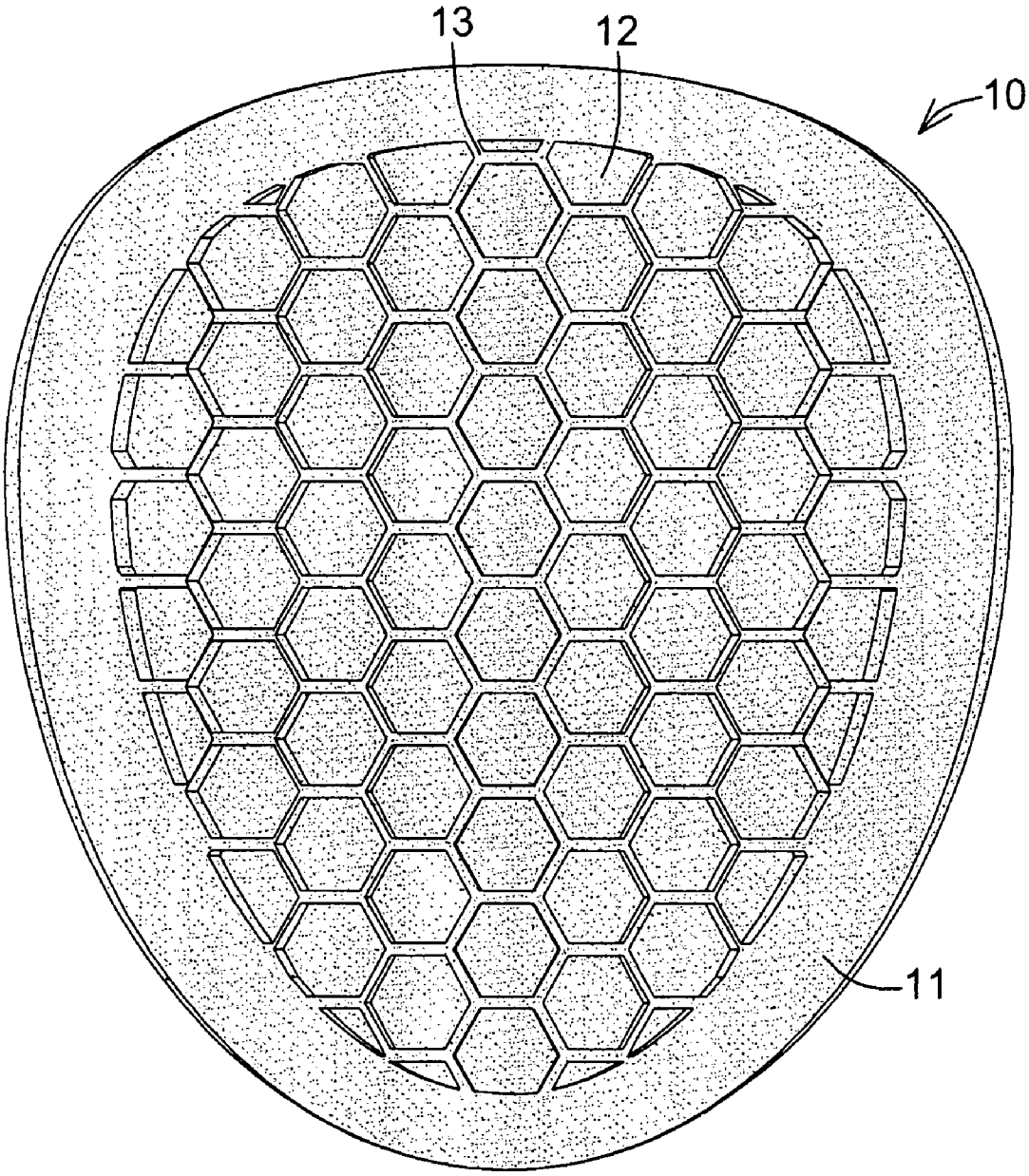


FIG. 3

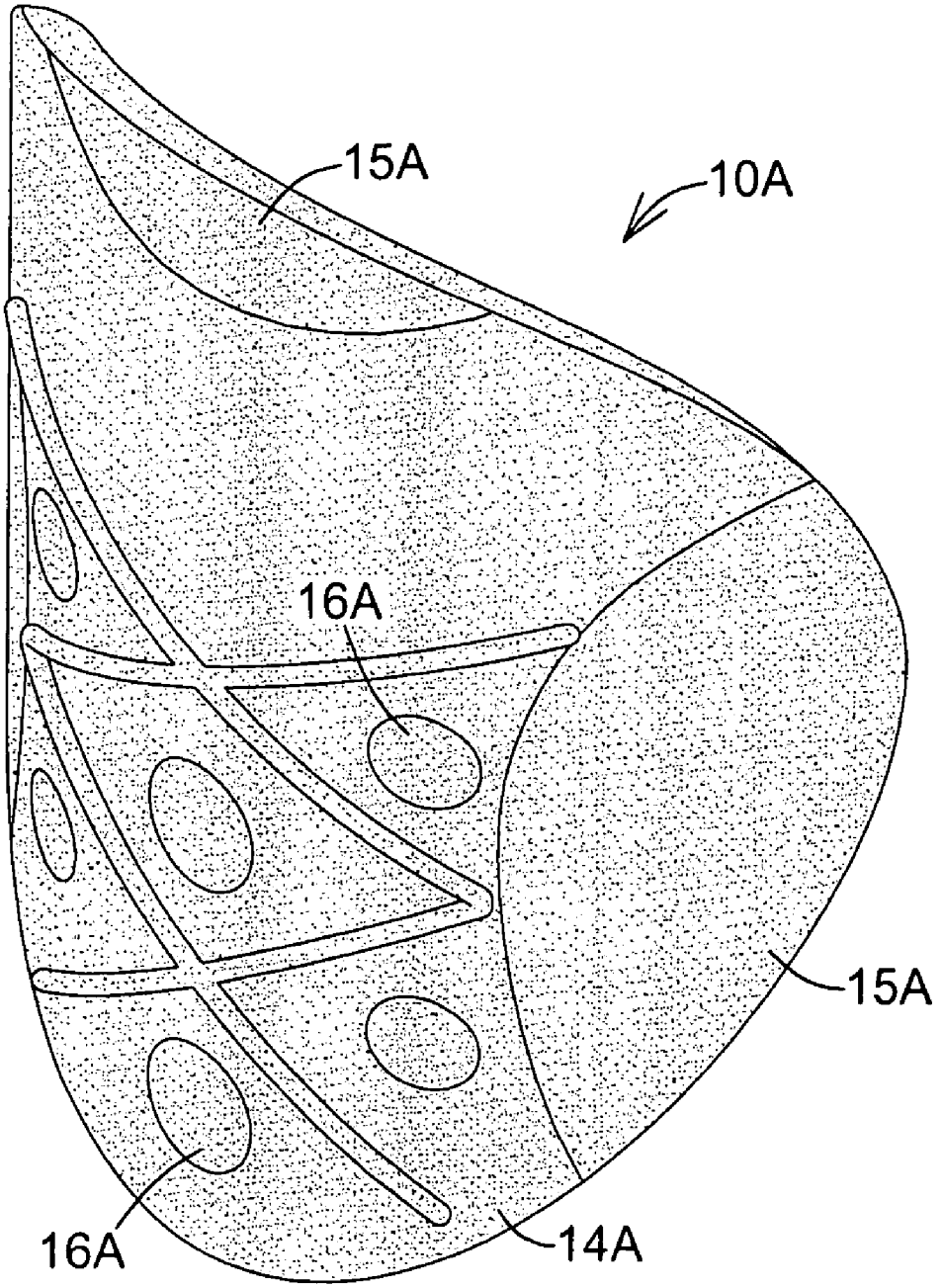


FIG. 4

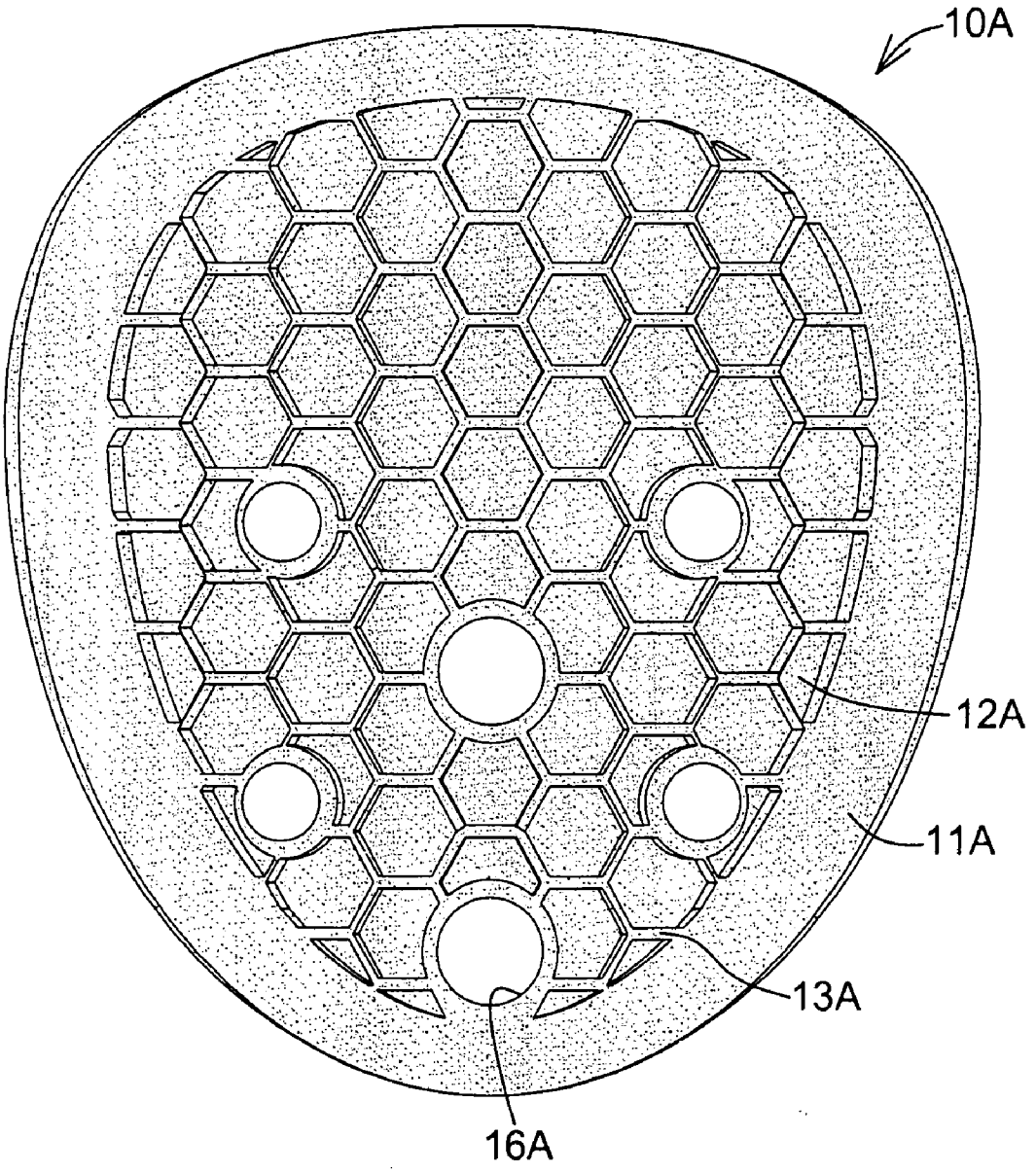


FIG. 5

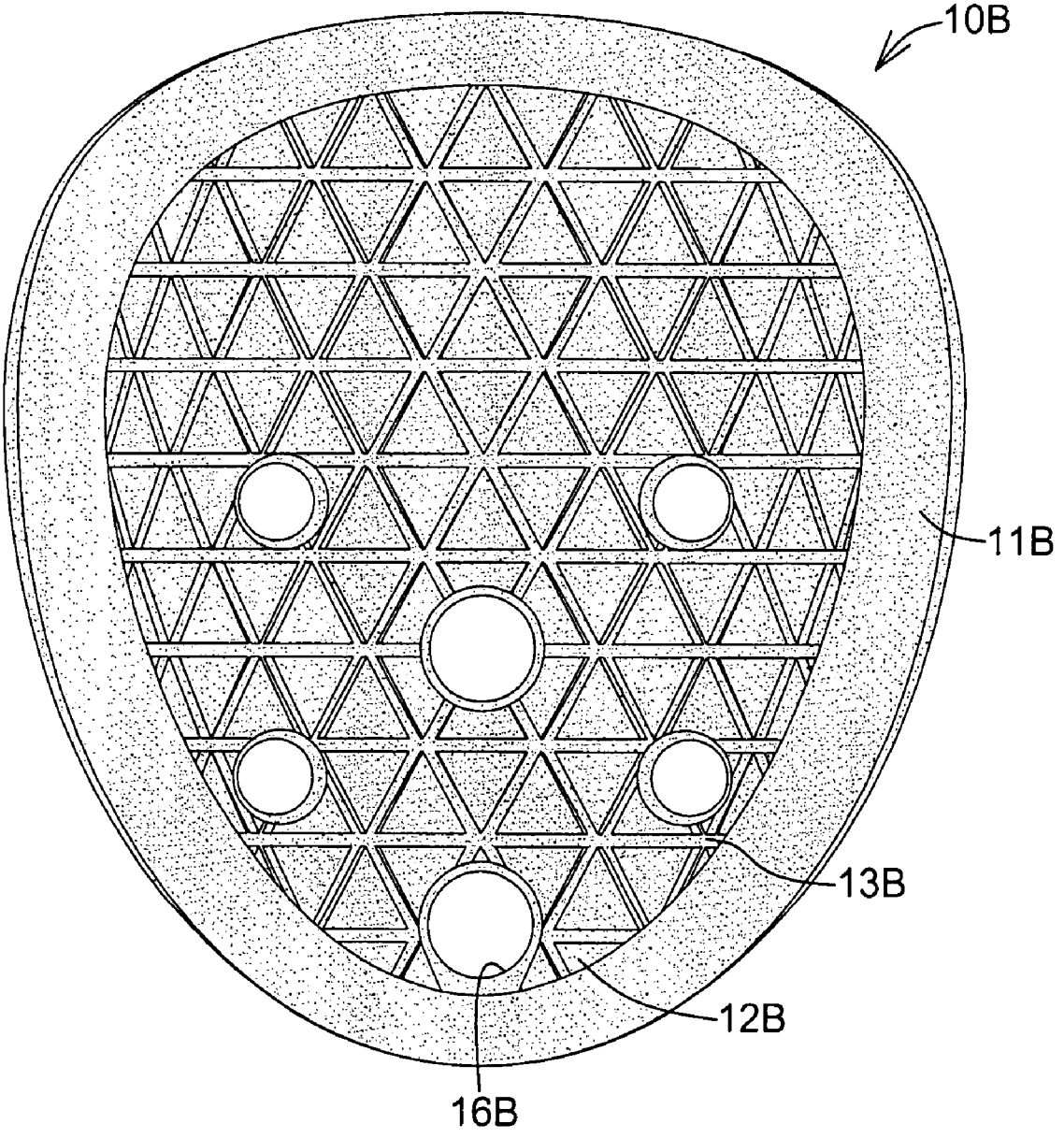


FIG. 6

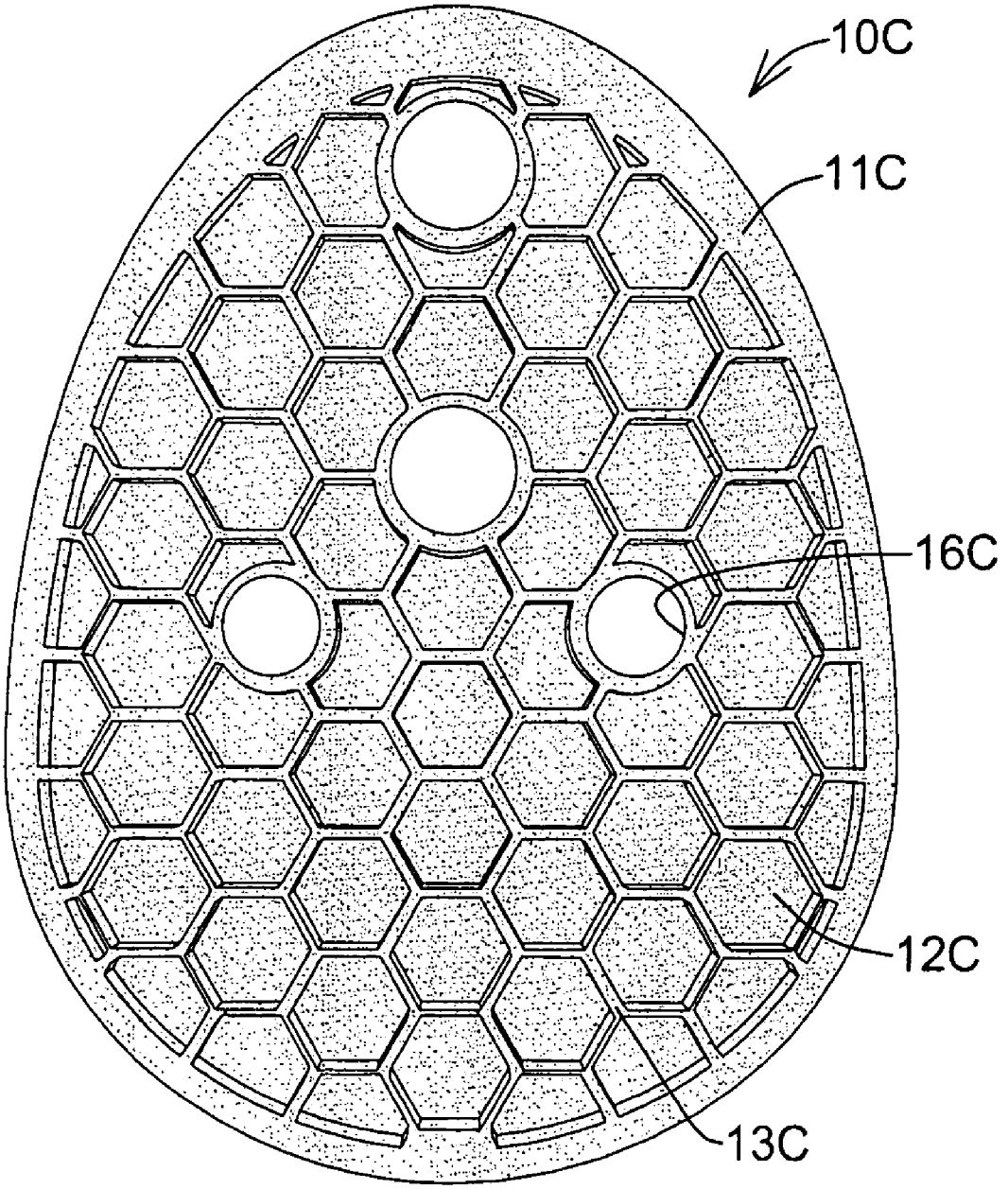


FIG. 7

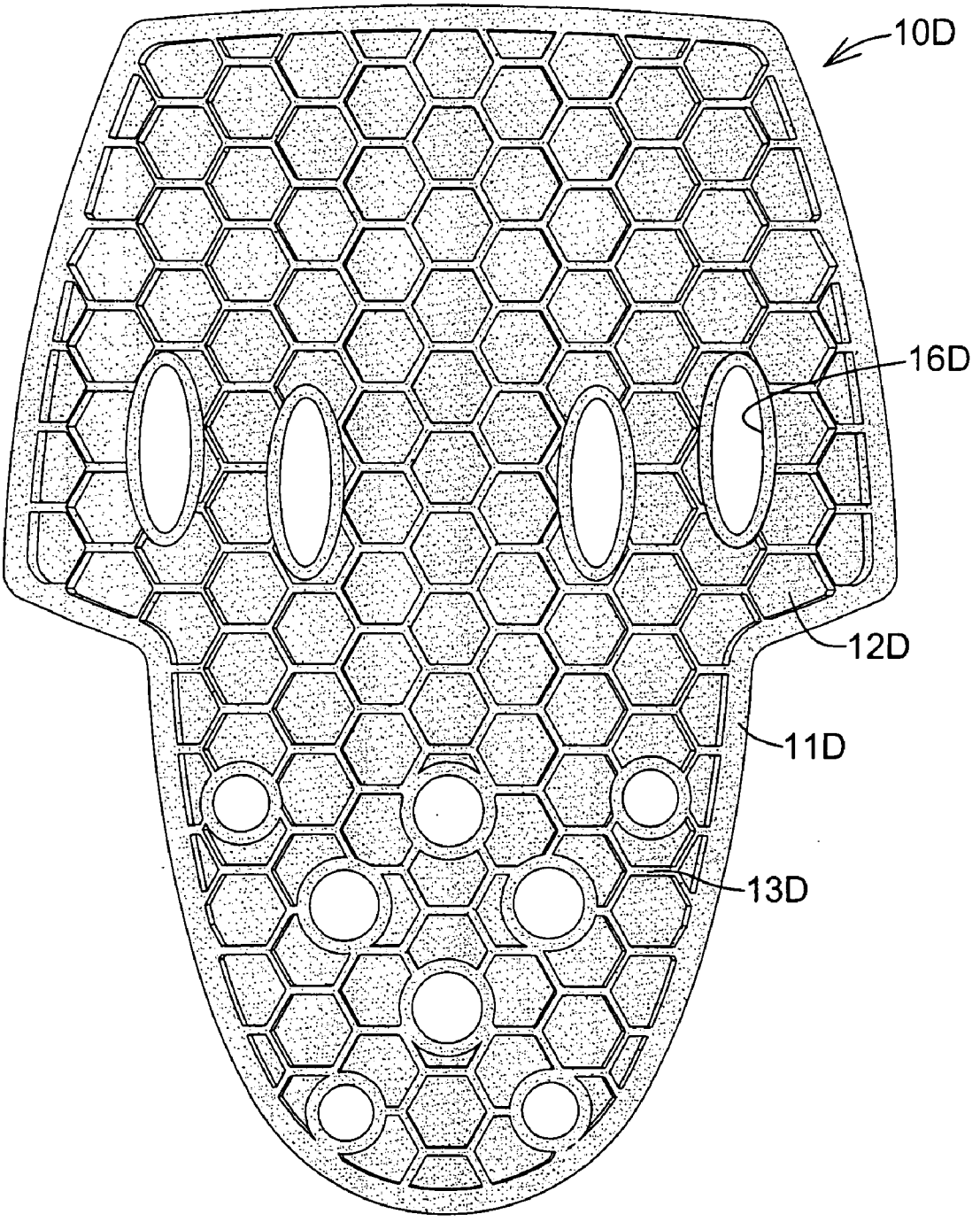


FIG. 8

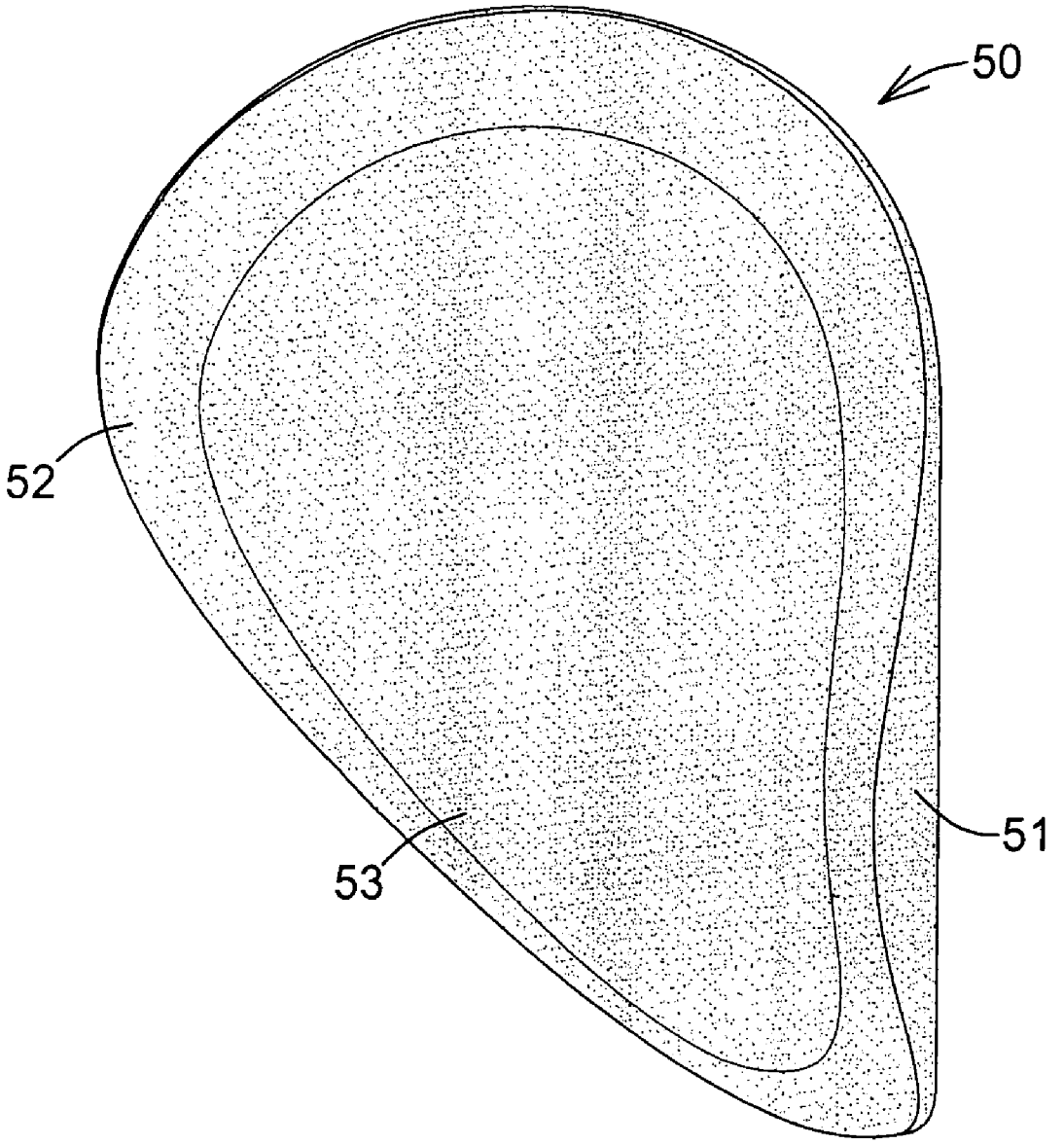


FIG. 9
PRIOR ART

PROTECTIVE SPORTS-PAD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a protective sports-pad, and more particularly to a protective sports-pad that is vented and comfortable to use.

[0003] 2. Description of Related Art

[0004] Conventional protective sports-pads for contact sports keep a player from being injured and can be a hip pad, a thigh pad or a kneepad.

[0005] With reference to FIG. **9**, a conventional thigh pad (**50**) is a hard solid material, is curved and has an outer surface (**51**), an inner surface (**52**) and a recess (**53**). The hard solid material absorbs and spreads strikes to the outer surface (**51**) and provides a localized physical heat treatment. The recess (**53**) is formed in the inner surface (**52**) and a player's thigh.

[0006] However, the conventional thigh pad (**50**) has a number of shortcomings. The conventional thigh pad (**50**) does not have sufficient ventilation to allow heat to escape quickly so excessive heat accumulates inside the recess (**53**) makes a person wearing the conventional thigh pad (**50**) feel uncomfortable. Furthermore, moisture and sweat under the conventional thigh pad (**50**) and create a breeding ground for germs, which results irritation of the person's skin.

[0007] To overcome the shortcomings, the present invention tends to provide a protective sports-pad for football to mitigate the aforementioned problems.

SUMMARY OF THE INVENTION

[0008] The main objective of the present invention is to provide a protective sports-pad that is ventilated and comfortable to use.

[0009] The protective sports-pad in accordance with the present invention has an external surface, an inner surface, a recess, multiple protrusions and multiple airways. The recess is formed in the inner surface of the protective sports-pad. The protrusions are formed on and protrude from the inner surface in the recess. The airways are formed between adjacent protrusions and allow heat in the airways to escape easily and moisture and sweat in the airways to evaporate. Consequently, the protective sports-pad does not form a breeding ground for germs, does not irritate a person's skin and is comfortable to wear.

[0010] Other objectives, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. **1** is a perspective view of a first embodiment of a protective sports-pad in accordance with the present invention for a person's thigh;

[0012] FIG. **2** is a front view of the protective sports-pad in FIG. **1**;

[0013] FIG. **3** is a rear view of the protective sports-pad in FIG. **1**;

[0014] FIG. **4** is a perspective view of a second embodiment of a protective sports-pad in accordance with the present invention for a person's thigh;

[0015] FIG. **5** is a rear view of the protective sports-pad in FIG. **4**;

[0016] FIG. **6** is a rear view of a third embodiment of a protective sports-pad in accordance with the present invention for a person's thigh;

[0017] FIG. **7** is a rear view of a fourth embodiment of a protective sports-pad in accordance with the present invention for a person's knee;

[0018] FIG. **8** is a rear view of a fifth embodiment of a protective sports-pad in accordance with the present invention for a person's hip; and

[0019] FIG. **9** is a perspective rear view of a conventional thigh pad in accordance with the prior art.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] With reference to FIGS. **1**, **4**, **5**, **6**, **7** and **8**, a protective sports-pad (**10**, **10**A, **10**B, **10**C, **10**D) in accordance with the present invention is curved, can be made to protect a person's thigh, knee or hip and comprises an outer surface, an inner surface, a recess (**11**, **11**A, **11**B, **11**C, **11**D), multiple protrusions (**12**, **12**A, **12**B, **12**C, **12**D), multiple airways (**13**, **13**A, **13**B, **13**C, **13**D), an optional hard segment (**14**, **14**A), multiple optional soft segments (**15**, **15**A) and multiple optional through holes (**16**A, **16**B, **16**C, **16**D).

[0021] With further reference to FIGS. **2** and **3**, the recess (**11**, **11**A, **11**B, **11**C, **11**D) is formed in the inner surface of the protective sports-pad (**10**, **10**A, **10**B, **10**C, **10**D).

[0022] The protrusions (**12**, **12**A, **12**B, **12**C, **12**D) and are formed on and protrude from the inner surface in the recess (**11**, **11**A, **11**B, **11**C, **11**D) and may be hexagonal or triangular.

[0023] The airways (**13**, **13**A, **13**B, **13**C, **13**D) are formed between adjacent protrusions (**12**, **12**A, **12**B, **12**C, **12**D), disperse heat from the recess (**11**, **11**A, **11**B, **11**C, **11**D) and may be communicate with each other.

[0024] The hard segment (**14**, **14**A) is formed on the outer surface of the protective sports-pad (**10**, **10**A), causes the protective sports-pad (**10**, **10**A) to retain its shape after being struck and distributes a blow to a point over a large area.

[0025] The soft segments (**15**, **15**A) are formed on the outer surface of the thigh pad (**10**, **10**A) and absorb blows to the thigh pad (**10**, **10**A).

[0026] The through holes (**16**A, **16**B, **16**C, **16**D) are formed through the protective sports-pad (**10**A, **10**B, **10**C, **10**D) and communicate with the airways (**13**A, **13**B, **13**C, **13**D) between the protrusions (**12**A, **12**B, **12**C, **12**D) to allow heat in the recess (**11**A, **11**B, **11**C, **11**D) to escape via the airways (**13**A, **13**B, **13**C, **13**D).

[0027] Therefore, the protective sports-pad as described allows heat to escape easily through the airways (**13**, **13**A, **13**B, **13**C, **13**D) and the through holes (**16**A, **16**B, **16**C, **16**D) to ventilate the protective sports-pad. Furthermore, evaporated moisture and sweat can escape through the airways (**13**, **13**A, **13**B, **13**C, **13**D) and the through holes (**16**A, **16**B,**16**C, **16**D) to prevent the protective sports-pad (**10**, **10**A, **10**B, **10**C, **10**D) from creating a breeding ground for germs and irritating the skin, and this can make the protective pad comfortable.

[0028] Even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and features of the invention, the disclosure is illustrative only. Changes may be made in the details, especially in matters of shape, size, and arrangement of parts within the prin-

ciples of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. A protective sports-pad being curved and having

an outer surface;

an inner surface;

a recess being formed in the inner surface of the protective sports-pad;

multiple protrusions being formed on and protruding from the inner surface in the recess; and

multiple airways being formed between adjacent protrusions.

2. The protective sports-pad as claimed in claim **1**, wherein the protective sports-pad further has

a hard segment being formed on the outer surface of the protective sports-pad; and

multiple soft segments being formed on the outer surface of the protective sports-pad.

3. The protective sports-pad as claimed in claim **1**, wherein the protective sports-pad further has multiple through holes being formed through the protective sports-pad and communicating with the airways between the protrusions.

4. The protective sports-pad as claimed in claim **2**, wherein the protective sports-pad further has multiple through holes being formed through the protective sports-pad and communicating with the airways between the protrusions.

5. The protective sports-pad as claimed in claim **4**, wherein the protrusions are hexagonal.

6. The protective sports-pad as claimed in claim **4**, wherein the protrusions are triangular.

7. The protective sports-pad as claimed in claim **1**, wherein the protrusions hexagonal.

8. The protective sports-pad as claimed in claim **1**, wherein the protrusion are triangular.

9. The protective sports-pad as claimed in claim **1**, wherein the airways communicate with each other.

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