Liquid matter remaining in the gap is absorbed by the cylindrical portion and wiped off.

Citation List

Patent Document

[0011] Patent Document 1: JP 2017-099738A

Disclosure of Invention

Problem to be Solved by the Invention

[0012] Patent Document 1 describes that the cylindrical portion is constituted by a foam or a non-woven fabric made of urethane or polyvinyl alcohol, and can be produced through press molding, transfer molding, or the like. However, it is difficult to mold a foam or a non-woven fabric made of the above-mentioned materials into a cylindrical portion with desired strength. If the cylindrical portion is too soft, the cylindrical portion is likely to deform when it is inserted into the gap 916 between the male member 911 and the outer cylinder 913. Accordingly, the cylindrical portion cannot be inserted deep enough to reach the bottom plate 914, and it is difficult to wipe off liquid matter adhering to the vicinity of the bottom plate 914. On the other hand, if the cylindrical portion is too hard, the cylindrical portion cannot deform to match the male connector 910. Accordingly, for example, it is difficult to wipe off liquid matter adhering to the inside of the groove of the female thread 915 or a corner in the vicinity of the bottom plate 914. In this manner, conventional wiping tips are problematic in that it is not possible to completely wipe off liquid matter adhering to the male connector 910.

[0013] Embodiments of the present invention provide a wiping tip capable of cleanly cleaning a male connector provided with a female thread formed so as to surround a male member.

Means for Solving Problem

[0014] According to an aspect of the present invention, there is provided a wiping tip including: a hollow cylindrical member; and a cotton-like wiping member arranged on the cylindrical member. The cotton-like wiping member constitutes a thin film portion covering an opening at an end of the cylindrical member, and an outer

circumferential portion extending from the thin film portion and covering an outer circumferential face of the cylindrical member over a predetermined length from the end.

Effects of the Invention

[0015] The cylindrical member makes it possible to deeply insert the cotton-like wiping member into a gap between a male member and an outer cylinder. The cotton-like wiping member is interposed between a cylindrical member and a male connector. Thus, according to embodiments of the present invention, it is possible to cleanly clean a male connector provided with a female thread formed so as to surround a male member.

Brief Description of Drawings

[0016] [FIG. 1] FIG. 1A is a perspective view of a wiping tip according to Embodiment 1 of the present invention. FIG. 1B is a cross-sectional view of the wiping tip according to Embodiment 1 of the present invention.

[FIG. 2] FIG. 2 is a cross-sectional view showing a step of cleaning the male connector using the wiping tip according to Embodiment 1 of the present invention.

[FIG. 3] FIG. 3 is a cross-sectional view showing a next step of cleaning the male connector using the wiping tip according to Embodiment 1 of the present invention.

[FIG. 4] FIG. 4 is a cross-sectional view showing a next step of cleaning the male connector using the wiping tip according to Embodiment 1 of the present invention.

[FIG. 5] FIG. 5 is a cross-sectional view showing a next step of cleaning the male connector using the wiping tip according to Embodiment 1 of the present invention.

[FIG. 6] FIG. 6A is a perspective view of another wiping tip according to Embodiment 1 of the present invention. FIG. 6B is a cross-sectional view of the wiping tip in FIG. 6A.

[FIG. 7] FIG. 7A is an enlarged perspective view of part of a wiping tip according to Embodiment 2 of the present invention. FIG. 7B is an enlarged