

[54] **RAZOR CARTRIDGE AND ADAPTER ASSEMBLY**

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[73] Assignee: **The Gillette Company**, Boston, Mass.

[22] Filed: **Jan. 30, 1974**

[21] Appl. No.: **437,733**

**Related U.S. Application Data**

[63] Continuation of Ser. No. 294,482, Oct. 2, 1972, abandoned.

[52] U.S. Cl. .... **30/34 R, 30/47, 30/90**

[51] Int. Cl. .... **B26b 21/40**

[58] Field of Search ..... **30/40, 40.2, 47, 34 R, 30/90**

**References Cited**

**UNITED STATES PATENTS**

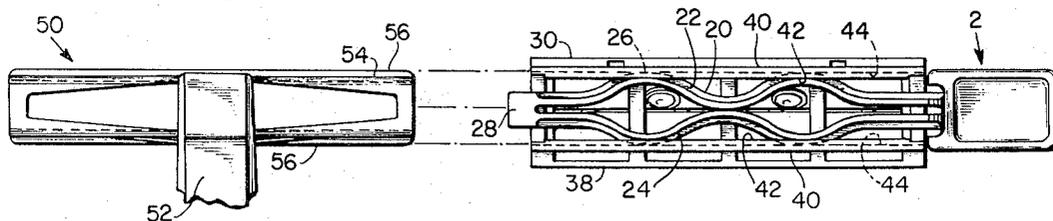
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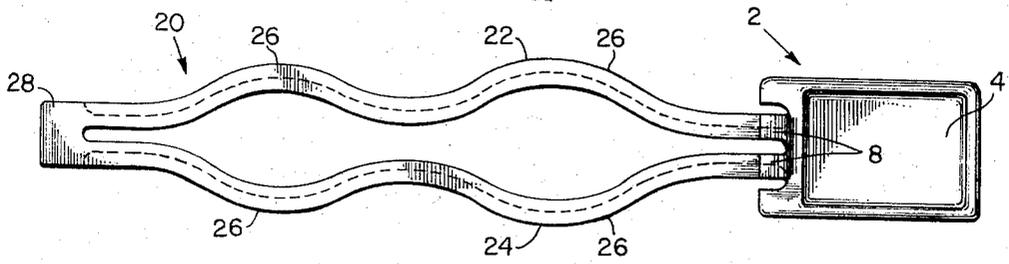
[57] **ABSTRACT**

A razor cartridge assembly comprising in combination a razor cartridge and an adapter for affixing the cartridge to a razor handle. The cartridge includes plastic platform and cap members joined together with blade means disposed therebetween. A pair of rails extend from the platform and form opposed parallel grooves. The adapter comprises a grip portion and a sabre portion extending from the grip portion. The sabre portion comprises compressible wire-like means disposed in said cartridge grooves. The sabre portion is adapted to be inserted between rails of a cartridge type razor handle whereby to slide the razor cartridge onto the razor handle.

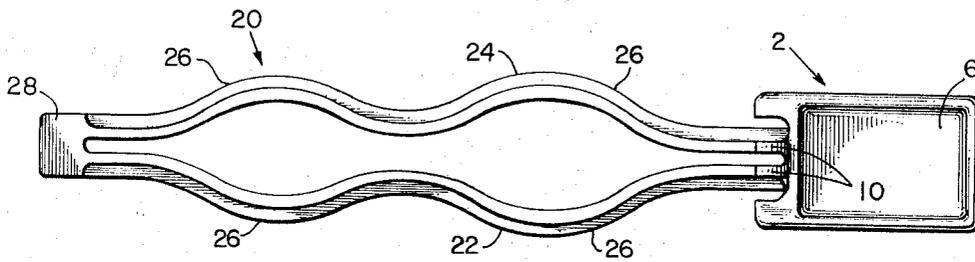
**9 Claims, 10 Drawing Figures**



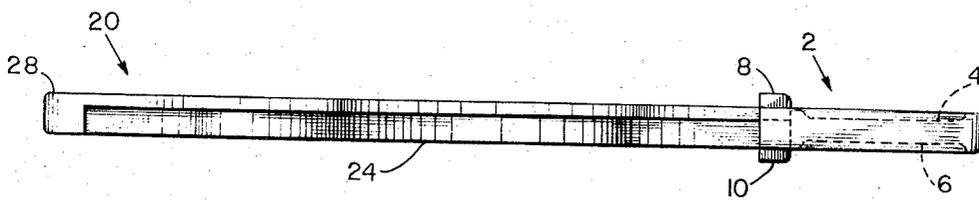
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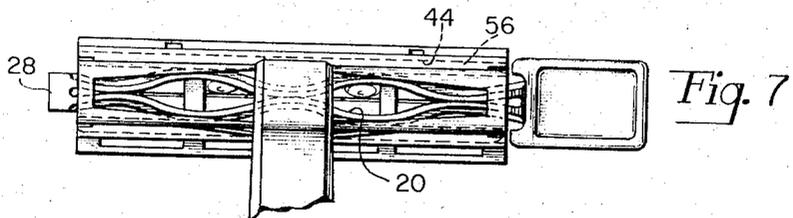
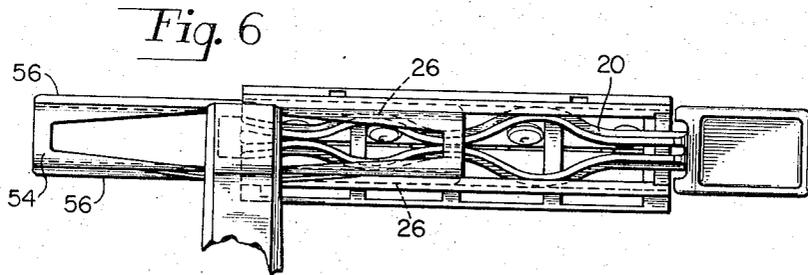
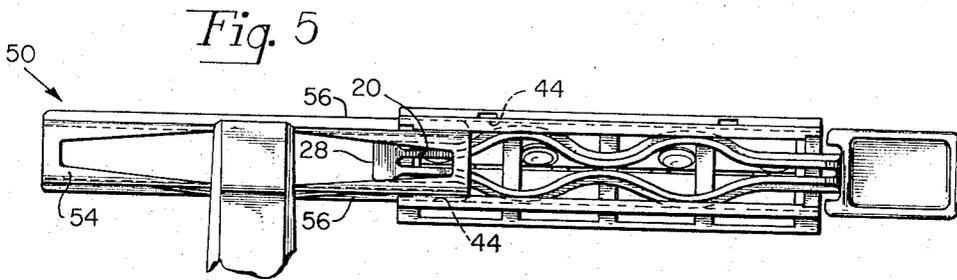
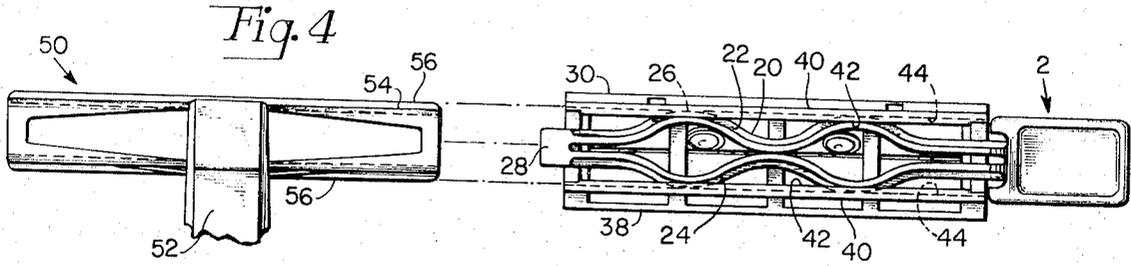
*Fig. 1*



*Fig. 2*



*Fig. 3*



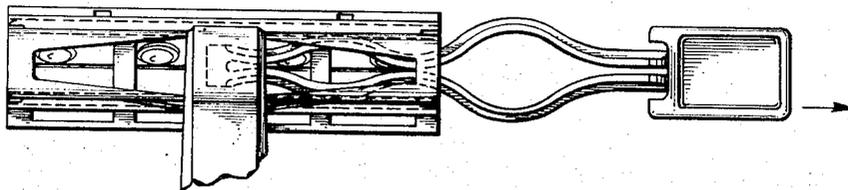


Fig. 8

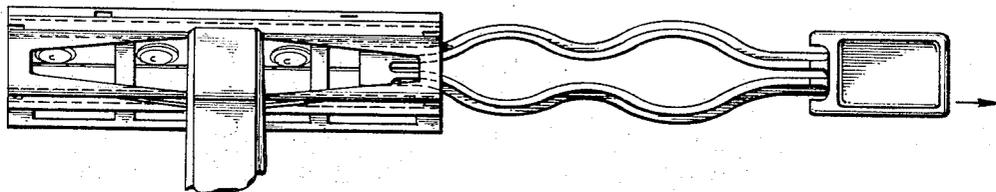


Fig. 9

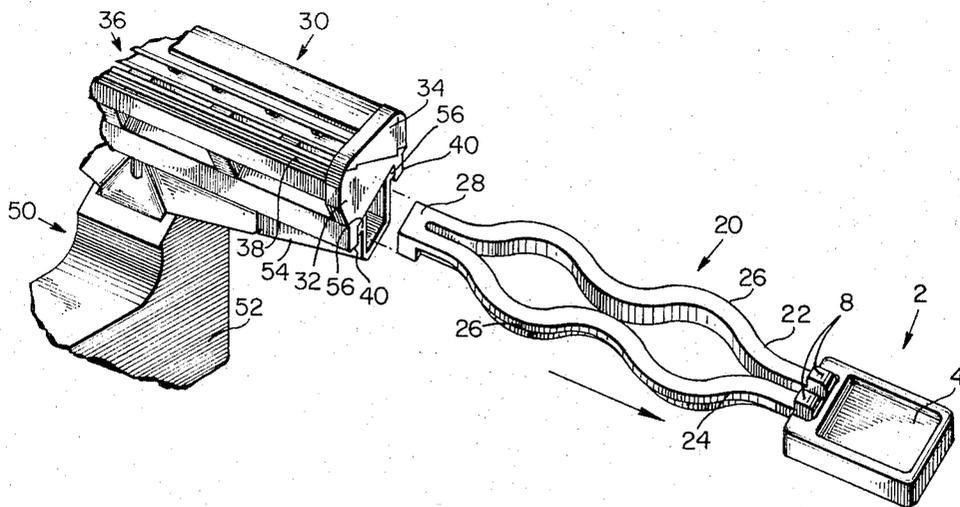


Fig. 10

**RAZOR CARTRIDGE AND ADAPTER ASSEMBLY****CROSS REFERENCE TO RELATED APPLICATION**

This is a continuation of application filed Oct. 2, 1972, under Ser. No. 294,482 and now abandoned in the name of MICHAEL J. GRAY.

**BACKGROUND OF THE INVENTION****1. Field of the Invention**

This invention relates to cartridge type shaving systems and is directed more particularly to a cartridge assembly including means for mounting a razor cartridge and for affixing the cartridge to a razor handle.

**2. Description of the Prior Art**

Razor blade units of the type shown and described in U.S. pat. application Ser. No. 124,068, filed Mar. 15, 1971 now U.S. Pat. No. 3,724,070 in the name of Francis W. Dorion, Jr. are now widely used in conjunction with razor handles of the type shown and described in U.S. patent application Ser. No. 207,357, filed Dec. 13, 1971; now U.S. Pat. No. 3,768,162 in the name of Roger L. Perry. The handle is provided at one end with a pair of rails which slidably receive the cartridge.

The cartridges are generally available in packages which contain a plurality of the cartridges and serve as dispensers therefor. U.S. patent application Ser. No. 212,352, filed Dec. 27, 1971, now U.S. Pat. No. 3,835,532 in the name of Richard J. Petrillo illustrates a package-dispenser of this sort.

There is a need, however, for a device permitting sale and use of such cartridges one at a time.

**SUMMARY OF THE INVENTION**

It is, therefore, an object of the invention to provide a cartridge assembly including means for mounting a single razor cartridge and for affixing the cartridge to a razor handle when desired.

With the above and other objects in view, as will hereinafter appear, a feature of the present invention is the provision of a razor cartridge assembly including an adapter comprising a grip portion and a sabre portion extending therefrom. The sabre portion comprises a pair of wires, or the like, having a wavy configuration and adapted to engage the slide portion of a razor cartridge for retaining the cartridge thereon. The sabre portion is further adapted to engage the rails portion of a handle whereby to slidably dispose the cartridge on the rails of the handle.

The above and other features of the invention, including various novel details of construction and combinations of parts, will now be more particularly described with reference to the accompanying drawings and pointed out in the claims. It will be understood that the particular razor cartridge adapter embodying the invention is shown by way of illustration only and not as a limitation of the invention. The principles and features of this invention may be employed in various and numerous embodiments without departing from the scope of the invention.

**BRIEF DESCRIPTION OF THE DRAWINGS**

Reference is made to the accompanying drawings in which is shown an illustrative embodiment of the invention from which its novel features and advantages will be apparent.

FIG. 1 is a top plan view of one form of adapter portion of an embodiment of the invention;

FIG. 2 is a bottom plan view of the adapter portion; FIG. 3 is an edge view of the adapter portion;

FIG. 4 is a bottom plan view of a razor cartridge assembly illustrative of an embodiment of the invention and including the adapter portion of FIGS. 1-3;

FIG. 5 is a bottom plan view, similar to FIG. 4, but showing the adapter portion being inserted between the rails of a razor handle;

FIG. 6 is a bottom plan view, similar to FIG. 5, but showing the adapter portion extending further between the rails;

FIG. 7 is a bottom plan view, similar to FIG. 6, but showing the adapter portion fully inserted into the handle rails and the cartridge in operative position on the rails;

FIG. 8 is a bottom plan view, similar to FIG. 7, but showing the adapter portion being withdrawn from the razor handle; and

FIG. 9 is a bottom plan view, similar to FIG. 8, but showing the adapter portion further withdrawn from the razor handle; and

FIG. 10 is a perspective view showing the adapter portion fully withdrawn from the handle.

**DESCRIPTION OF THE PREFERRED EMBODIMENT**

Referring to FIGS. 1-3, it will be seen that the adapter portion of the present invention comprises a grip portion 2 which may be provided with recesses 4, 6 and lugs 8, 10 on either side thereof to facilitate handling by an operator.

Extending from the grip portion 2 is a sabre portion 20 including a pair of wire-like members 22, 24 having a wavy or sinuous formation, whereby to present compressible expanded portions 26. At their ends remote from grip portion 2, the wires 22, 24 are joined to form nose portion 28.

In FIG. 4 there is shown a cartridge 30 disposed on the sabre portion 20 of the adapter 2. Referring to FIGS. 4 and 10, it will be seen that the cartridge 30 comprises a plastic platform member 32 fastened to a plastic cap member 34 with blade means 36 sandwiched therebetween. The platform member 32 is provided with a guard portion 38.

The cartridge 30 is also provided with a pair of elongated parallel downwardly extending walls 40 having inturned flanges 42 at their free edges to form opposed parallel grooves 44.

The grooves 44 receive the expanded portion 26 of the sabre portion 20 (FIG. 4) and the cartridge 30 is retained on the adapter 2 by the leaf spring action of the wires 22, 24.

In FIGS. 4 and 10, there is also shown a razor handle 50 adapted to receive and retain the cartridge 30. The handle 50 includes a grip portion 52 and a head portion 54. The head portion 54 includes a pair of elongated parallel rails 56, adapted to slidably enter the grooves 44 of the cartridge 30.

Referring to FIG. 5, it will be seen that in operation an operator inserts the nose portion 28 between the rails 56 of the handle 50. As the sabre portion 20 of the actuator enters the razor head 54, the rails 56 enter the grooves 44 of the cartridge 30. Further insertion of the sabre portion 20 into the razor head 54 (FIG. 6) causes the rails 56 to compress the expanded portions 26 of the sabre so that as the cartridge slides along the outside of the rails, the sabre portion 20 is compressed be-

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tween the rails. When the adapter is fully inserted in the razor head (FIG. 7) the cartridge grooves 44 are filled by the rails 56 and the sabre portion 20 is compressed between the rails.

Thus, the adapter may then be withdrawn from the razor head without disturbing the cartridge (FIGS. 8-10).

It is to be understood that the present invention is by no means limited to the particular construction herein disclosed and/or shown in the drawings, but also comprises any modifications or equivalents within the scope of the disclosure.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A razor cartridge assembly comprising, in combination, a razor cartridge and an adapter, said razor cartridge comprising a rigid platform member, a rigid cap member joined to said platform member, blade means fixedly disposed between said platform member and said cap member, a pair of elongated parallel rails extending from said cartridge and having inturned flanges at their free edges to form opposed parallel grooves, said adapter comprising a grip portion and a sabre portion extending from said grip portion, said sabre portion in its substantial entirety consisting of compressible wire-like means in engagement with interior portions of said parallel grooves, said cartridge being supported solely by said wire-like means.

2. The invention according to claim 1 in which said wire-like means has a wavy formation.

3. The invention according to claim 1 in which said wire-like means comprises a pair of wire-like members.

4. The invention according to claim 3 in which said wire-like members are connected at their ends remote from said grip portion.

5. The invention according to claim 2 in which said wire-like means comprises a pair of wire-like members, at least one of said members having a wavy formation.

6. The invention according to claim 2 in which said wire-like means comprises a pair of wire-like members, said members each having a wavy formation.

7. The invention according to claim 6 in which said wire-like members are connected at their ends remote from said grip portion.

8. A razor cartridge assembly comprising, in combination, a razor cartridge and an adapter, said razor cartridge comprising a plastic platform member, a plastic cap member joined to said platform member, blade means disposed between said platform member and said cap member, a pair of elongated parallel rails extending from said cartridge and having inturned flanges at their free edges to form opposed parallel grooves, said adapter comprising a grip portion and a sabre portion extending from said grip portion, said sabre portion comprising a pair of compressible wire-like members joined at their ends remote from said grip portion, said sabre portion being in engagement with interior portions of said parallel grooves.

9. The invention according to claim 8 in which said wire-like members each have a wavy formation.

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