Patent Documents

[0005]

Patent Document 1: Japanese Laid-Open Patent Application No. 2013-203464

SUMMARY

[0006] In the refill container in Patent Document 1, a weak part is formed in the flat plate provided to the spout, allowing separation of the inner side of the weak part. That is, in the flat plate, an inner side and an outer side of the weak part are configured by a single member. However, when the pouring nozzle is inserted, the inner side of the weak part may not smoothly separate from the flat plate. When this happens, the pouring nozzle of the packaging container locally breaks through the flat plate, forming a hole in a sealing plate. When a hole is formed in the flat plate, broken pieces of the flat plate may be produced. When broken pieces are produced, the broken pieces may penetrate the packaging container and clog the pouring nozzle of the packaging container.

[0007]

Further, the refill container is based on the premise that all of the contents of the refill container are transferred into the packaging container in one refilling task. Nevertheless, when the capacity of the packaging container is less than the capacity of the refill container, it is necessary to transfer the contents stored in the refill container into the packaging container by dividing the contents several times. In such a refill container, to prevent the remaining contents from changing in quality, the spout is preferably re-closed at the position of the pouring hole after the packaging container is refilled with the contents from the refill container.

[0008] The present disclosure is made to resolve the above-described problems, and embodiments provide a pouring spout of a container that makes it possible to open and close a closing member that closes a tubular pouring part of a pouring spout without producing broken pieces or the like, and prevent a change in quality of contents remaining in a refill container, even when the contents are transferred by dividing the contents several times.

[0009]

A pouring spout of a container according to as asepct for solving the above-described problems is a pouring spout of a container comprising a spout main body including a tubular pouring part provided with an inflow port for allowing contents to flow in and an outflow port for allowing contents to flow out, and an attached part for attaching the inflow port side to a container main body part; a closing member configured as a separate body from the tubular pouring part and fitted onto an inner circumferential surface of the tubular pouring part in a mode that allows the inflow port to be opened and closed; and an energizing body that energizes the closing member from the container main body part side toward the inflow port and blocks the inflow port by the closing member. The closing member is removed from the inner circumferential surface of the tubular pouring

part against an energizing force of the energizing body by an external force applied from the outflow port side.

[0010]

According to an embodiment , the pouring spout of a container includes the energizing body that energizes the closing member from the container main body part side toward the inflow port and blocks the inflow port by the closing member, and the closing member is removed from the inner circumferential surface of the tubular pouring part against the energizing force of the energizing body by an external force applied from the outflow port side, making it possible to open and close the inflow port of the tubular pouring part. Thus, even in a case where a packaging container is to be refilled with contents of a refill container provided with the pouring spout by dividing the contents several times, it is possible to keep outside air from entering an interior of the refill container after the packaging container is refilled with the contents of the refill container at a certain time until the packaging container is refilled with the contents the next time. Thus, even when contents remain in the refill container, it is possible to keep the contents from coming into contact with outside air and changing in quality.

[0011]

In the pouring spout of a container according to an embodiment, the energizing body includes a holding body inserted from the attached part into an interior of the container main body part, and a spring member attached to the holding body. The spring member couples the holding body and the closing member.

[0012]

According to an embodiment, the holding body constituting the energizing body is inserted into the interior of the container main body part, and the holding body and the closing member are coupled by the spring member, making it possible to smoothly pour the contents without the energizing body hindering the flow of the contents when the contents are poured from the refill container.

[0013]

In the pouring spout of a container according to an embodiment, the attached part and the energizing body are configured as an integrated object.

[0014]

According to an embodiment, the attached part and the energizing body are an integrated object, making it possible to manufacture the pouring spout using a manufacturing method capable of molding the pouring spout including the energizing body in one step of injection molding or the like.

[0015]

In the pouring spout of a container according to the an embodiment, the energizing body is provided with an attachment mechanism capable of attaching the energizing body to the attached part.

[0016]

According to an embodiment, the energizing body is provided with an attachment mechanism capable of attaching the energizing body to the attached part, making it possible to manufacture the portion of the main body of the pouring spout and the portion of the energizing body separately, and subsequently combine the two to manufacture a finished product.

[0017]

According to the present idisclosure it is possible to move a closing member that closes a tubular pouring part of the pouring spout to open and close the tubular pouring part without producing broken pieces or the like, and transfer contents from a transfer container into a packaging container by dividing the contents several times.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018]

Fig. 1 is a plan view of a standing pouch serving as a refill container provided with a pouring spout according to the present invention.

Fig. 2 is a side view illustrating a side part of the pouring spout of an embodiment according to the present invention.

Fig. 3 is a longitudinal sectional view of the pouring spout illustrated in Fig. 2 taken along a central part in a longitudinal direction of Fig. 2 in its entirety.

Fig. 4 is a side view illustrating a side part of a packaging container to be refilled with contents from the refill container.

Fig. 5 is a perspective view of a pouring unit constituting the packaging container illustrated in Fig 4.

Figs. 6A, 6B, and 6C are explanatory views for explaining an action of the pouring spout according to the present invention.

Fig. 7 is a side view illustrating a side part of the pouring spout in a mode different from that of the pouring spout of Fig. 2 and Fig. 3.

Fig. 8 is a side view of an energizing body constituting the pouring spout of Fig. 7.

Fig. 9 is a side view illustrating a side part of the pouring spout in a mode different from that of the pouring spout of Fig. 2 and Fig. 3.

Fig. 10 is a side view of the energizing body constituting the pouring spout.

Fig. 11 is a sectional view of the pouring spout that is a separate body from a spout main body part and the energizing body.

Embodiments of the Invention

[0019]

An embodiment of the present invention is described below with reference to the drawings. The present invention includes inventions of the same technical idea as the modes set forth in the embodiments and drawings below, and the technical scope of the present invention is not limited to those described in the embodiments and drawings. In this specification, a pouring spout is referred to as a “pouring spout 10” when including the pouring spouts 10A, 10B, 10C, 10D in each mode, and as the “pouring spout 10A” or the like when referring to a pouring spout of an individual mode.

[0020]

[Basic Configuration]

A pouring spout 10 of a container according to the present invention includes a tubular pouring part 11, an attached part 15, a closing member 20, and an energizing body 50. The tubular pouring part 11 includes an inflow port 10d for allowing contents stored in a