

ELECTRICAL APPLIANCES AND COLLECTION SYSTEM FOR ELECTRICAL APPLIANCES

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to the collection of electrical appliance bodies, to electrical appliances which can be reclaimed or reverted to raw materials, and to a collection system for such electrical appliances.

2. Description of the Related Art

Heretofore, the product distribution channel for electrical appliances used in offices and at home, involves a manufacturer, a sales outlet, and a consumer, distribution passing from the manufacturer to the consumer via the sales outlet. Once the electrical appliance has been worn out by the consumer, the electrical appliance body is discarded as rubbish. The discarded electrical appliance body is then transported by truck to a refuse dump. Refuse disposal at the refuse dump then involves conventional processing channels.

With conventional electrical appliances however, the material thereof comprises resins and various metals. Hence if this is discarded as waste from the consumer, and subsequently incinerated, then the noxious gases in the exhaust gases generated at the time of incineration result in environmental pollution. Moreover, if the waste is discarded into the natural environment as rubbish, since it is difficult for products made from artificial materials to subsequently return to nature, the various metals contaminate the soil and the natural environment is also damaged.

SUMMARY OF THE INVENTION

The present invention has been developed in order to solve such problems, with the object of providing an electrical appliance which once the body thereof has been worn out the electrical appliance can be collected and reclaimed or reverted to raw materials, and of providing a collection system for such electrical appliances.

According to a first aspect of the present invention there is provided an electrical appliance body and packaging thereof comprising: a trade mark representation displayed on one or both of the electrical appliance body and the packaging; an environmental protection mark displayed on one or both of the surfaces of the electrical appliance body and the packaging; and an environmental protection cooperation organisation representation displayed on one or both of the electrical appliance body and the packaging, in the vicinity of the environmental protection mark.

Here environmental protection involves at least collecting the electrical appliance body after becoming useless and being discarded, and then reclaiming the basic components or reverting these to raw materials rather than directly disposing as refuse. Consequently, by means of the environmental protection mark displayed on one or both of the electrical appliance body and

the packaging, the distributor or the consumer can be notified that the organisation disclosed on the environmental protection cooperation organisation representation, and the product origin organisation which can be read from the trade mark representation are cooperating with the electrical appliance recycle campaign.

According to a second aspect of the present invention, the environmental protection cooperation organisation representation is displayed sufficiently close to the environmental protection mark as to not cause confusion with the trade mark representation indicating the contents of the electrical appliance body and a product origin representation.

Therefore the person dealing with the electrical appliance body will not confuse this with products related to the business of others. Hence support for the product distribution system can be guaranteed.

According to a third aspect of the present invention, the trade mark representation is affixed to a surface of the electrical appliance body, and the environmental protection mark together with the environmental protection cooperation organisation representation are affixed in the vicinity of the trade mark representation.

Therefore the display regions are partitioned from each other. Hence a dealer can recognise that the environmental protection mark and the environmental protection cooperation organisation representation are both not related to the contents, and support for the collection of the electrical appliance body can thus be facilitated.

According to a fourth aspect of the present invention, the trade mark representation, the environmental protection mark and the environmental protection cooperation organisation representation are affixed to an upper face and a side face of one or both of the electrical appliance body and the packaging thereof.

Therefore since the environmental protection cooperation organisation representation is for a different type of industry or another enterprise, the dealer can recognise that the environmental protection mark and the environmental protection cooperation organisation representation are both not related to the contents, and support for the collection of the electrical appliance body can thus be facilitated.

According to a fifth aspect of the present invention, the electrical appliance is in general used in an office or in the home.

According to another aspect of the invention there is provided an electrical appliance body collection system comprising: a step of manufacturing an electrical appliance body; a step of transporting the electrical appliance body as disclosed in any one of claims 1 through 5 to a consumer; a step of collecting the electrical appliance body which has been worn out by a consumer; and a step of reclaiming or reverting to raw materials the collected electrical appliance body.

Further objects and aspects of the present invention will become apparent from the following description of embodiments given in conjunction with the appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the packaging of an electrical appliance according to an embodiment of the present invention;

FIG. 2 is a diagram showing an environmental protection mark and an environmental protection cooperation organisation representation;

FIG. 3 is a front view of a personal computer and an display according to an embodiment of the present invention;

FIG. 4 is a front view of an air conditioner room unit and outside unit according to an embodiment of the present invention;

FIG. 5 is a front view of a refrigerator according to an embodiment of the present invention;

FIG. 6 is an explanatory diagram showing an electrical appliance collection system according to an embodiment of the present invention; and

FIG. 7 is an explanatory diagram of an electrical appliance collection system according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As follows is a description of embodiments of the present invention, with reference to the drawings.

(First Embodiment)

With the first embodiment as shown in FIG. 1, a packaging 1 of an electrical appliance has environmental protection marks 3 displayed on an upper face and a side face thereof at positions unrelated to representations of a trademark 2.

The environmental protection mark 3 is for example the mark as shown in FIG. 2. The environmental protection mark 3 has the meaning that the enterprise body is cooperating with environmental recycling. Consequently the enterprise body name which is included in the environmental protection cooperation organisation representation 4 displayed close to the environmental protection mark 3, indicates that the enterprise body is cooperating with environmental recycling. With environmental recycling, the electrical appliance body inside the packaging which constitutes the surface is collected by a predetermined organisation (for example ABC collectors) and is then introduced to a reclamation and/or reversion to raw materials route, thus contributing to environmental protection. That is to say, the enterprise body which supports environmental protection displays an intention to cooperate with not immediately discarding electrical appliance bodies, and to contribute to environmental protection. Examples of where the electrical appliance bodies can be reused are for example recycling at a second hand market, and the recovery of rare earth metals.

The environmental protection cooperation organisation representation 4 which is displayed close to the environmental

protection mark 3, is a representation such as shown in FIG. 2 (A) and (B). The environmental protection cooperation organisation representation 4 shown in (A) displays "The advertisement on the electrical appliance body and packaging affixed with this world recycle mark is that of an enterprise which cooperates with recycling", while the environmental protection cooperation organisation representation 4 shown on (B) displays "ABC Company Limited is cooperating with recycling of the electrical appliance body to which this mark is affixed."

In the case where there is for example a first company name in the display shown in the trade mark representation 2, then having a second company name included in the environmental protection cooperation organisation representation 4 guarantees a relationship which does not cause confusion with the first company name and the source of the products. Having this second company name is to prevent the occurrence of a misunderstanding, for example that the second company whose name is displayed close to the environmental protection mark 3, manufactures or sells the electrical appliance body. This thus clearly indicates that the second company is an enterprise body which cooperates with environmental recycling indicated by the environmental protection mark 3.

For the packaging displaying the trade mark representation, the environmental protection mark, and the environmental protection cooperation organisation representation according to the present invention, this may be made of paper, plastics, wood, or metal. Moreover, the location for display of the trade mark representation, the environmental protection mark, and the environmental protection cooperation organisation representation according to the present invention varies depending on the size, shape and material etc. of the packaging.

Other embodiments related to the positional relationship between the electrical appliance body and the environmental protection mark, and the various types of electrical appliances, are shown in FIG. 3, FIG. 4, and FIG. 5.

(Second embodiment)

A second embodiment shown in FIG. 3 involves a personal computer body 5 and a display 6.

A trade mark representation 7 is displayed on ~~a portion on~~ the front face of the personal computer body 5 and the display 6. Moreover an environmental protection mark 3 is displayed on the front face of the personal computer body 5 and the display 6 by means of for example a sticker or direct printing.

(Third embodiment)

A third embodiment shown in FIG. 4 involves an air conditioner room unit 8 and an outside unit 9.

A trade mark representation 10 is displayed on the front face of the air conditioner room unit 8 and the outside unit 9. Moreover an environmental protection mark 3 is displayed on the front face of the air conditioner room unit 8 and an the outside unit 9 by means of for example a sticker or direct printing.

(Fourth embodiment)

A fourth embodiment shown in FIG. 5 involves a refrigerator 11.

A trade mark representation 12 is displayed on the front face of the refrigerator 11. Moreover an environmental protection mark 3 is displayed on the front face of the refrigerator 11 by means of for example a sticker or direct printing.

Next is a description of the electrical appliance body collection system.

As shown in FIG. 6, normally, an electrical appliance manufactured by an electrical appliance manufacturer 21 is delivered to a final store 22 via a distribution channel. The electrical appliance displayed on the counter of the store 22 is then purchased by a consumer 23. After the electrical appliance becomes useless and is discarded the electrical appliance is collected. The electrical appliance may be collected by the store 22 or a collector 24. There is also the case where the electrical appliance collected by the store 24 is then collected by the electrical appliance manufacturer 21. The electrical appliance collected by the collector 24 is recovered as a recycled product from a second hand market by a product reclaimer 25 or a final disposal dealer 26, who then reclaims this or reverts it to its raw materials. This is one embodiment of a distribution path for an electrical appliance.

Next is a description of an embodiment of the invention related to how to manage this collection system. FIG. 7 shows a schematic diagram.

At first, an enterprise which endorses a project for promoting protection of a natural and beautiful environment by an electrical appliance collection system is enrolled from amongst enterprises which endorse the ideology of promoting environmental protection. This enterprise with an ideology which understands the collection system is then welcomed in as a sponsor, for example company A, company B, company C and company D. A representation denoting an environmental protection cooperation organisation is inserted near the environmental protection mark on one or both of the electrical appliance body and the packaging, as an advertisement for a principle undertaking of the sponsor. Furthermore as shown in FIG. 7, a system management undertaking body for managing the system, levies advertising rates from the sponsors.

These advertising rates involve a time lag until the system management undertaking body reclaims the electrical appliances or reverts these to the raw materials, and are operated for different types and different years for example as an A fund, B fund, C fund, and D fund, and as a trust, and are made the funds for the property for reclamation or reversion to raw materials at various places and in various countries, and for technical support and factory buildings.

The system management undertaking body solicits cooperation of the electrical appliance manufacturers and enterprises which endorse the environmental protection project. A request is then made to the enterprise which supports the cooperation to display the beforementioned environmental protection mark on one or both of the electrical appliance body and packaging manufactured by the company.

The manufacturer which receives this request is then paid the actual fee and the cost for producing the environmental protection mark and the environmental protection cooperation organisation representation.

Next the system management undertaking body pays the cost to the store, or the collector etc. who are required to do the collecting. The above costs are all paid from an operational fund.

With this system, the system management principle body pays from the operational funds, the expenses required for the disposed goods collected by this system to the various places and various countries. Alternatively it carries out the building of disposal sites and provides technical support. For verification of the beforementioned disposal, it is the responsibility of the appropriate countries to provide the system management principle body with a report.

The system management principle body presents to the public the operational results and the payment conditions of the funds required for the collection, reclamation, reversion to raw materials, and the final disposal and so on.

In this way the funds for environmental protection support which have been put into practice, can be effectively used as funds for environmental protection activities. By means of these funds for environmental protection activities, the local body can promote collection projects for electrical appliances. In this way environmental protection creative activities which are kind to the land can be carried out, enabling the formation of living space amenable to general living as well as space for social activities.

Symbols

1. Electrical appliance packaging
2. Trade mark representation for packaging
3. Environmental protection mark
4. Environmental protection cooperation organisation representation
5. Personal computer
6. Display
7. Trade mark representation for personal computer and display
8. Air conditioner room unit
9. Air conditioner outside unit
10. Trade mark representation for air conditioner room unit and outside unit
1. Refrigerator
2. Trade mark representation for refrigerator

CLAIMS

1. An electrical appliance comprising:
a trade mark representation displayed on a surface of the electrical appliance body;
an environmental protection mark displayed on one or both of said electrical appliance body and a packaging thereof; and
an environmental protection cooperation organisation representation displayed on one or both of said electrical appliance body and the packaging, in the vicinity of said environmental protection mark.
2. An electrical appliance according to claim 1, wherein said environmental protection cooperation organisation representation is displayed sufficiently close to said environmental protection mark as to not cause confusion with said trade mark representation indicating said electrical appliance and a product origin representation.
3. An electrical appliance according to either one of claim 1 and claim 2, wherein said trade mark representation is affixed to one or both of said electrical appliance body and the packaging thereof, and said environmental protection mark together with said environmental protection cooperation organisation representation are affixed to one or both of said electrical appliance body and the packaging thereof.
4. An electrical appliance according to claim 3, wherein said trade mark representation, said environmental protection mark and said environmental protection cooperation organisation representation are affixed to an upper face and a side face of the surface of one or both of said electrical appliance body and the packaging thereof.
5. An electrical appliance according to claim 1, wherein said electrical appliance is used in an office or in the home.
6. An electrical appliance body collection system comprising:
a step of manufacturing an electrical appliance body;
a step of transporting the electrical appliance body and the packaging thereof as disclosed in any one of claims 1 through 5 to a consumer;
a step of collecting the electrical appliance body which has been discarded by a consumer; and
a step of reclaiming or reverting to raw materials the collected electrical appliance body.

