

April 23, 1940.

W. F. GREENWALD

2,198,162

IDENTIFYING MARK

Filed March 15, 1939

Fig. 1.

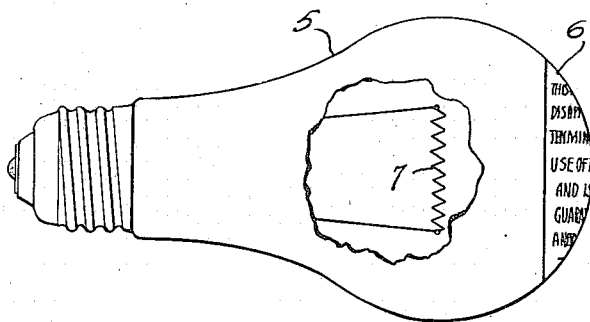


Fig. 2.

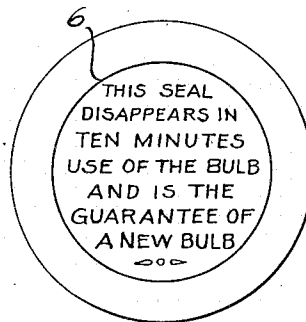
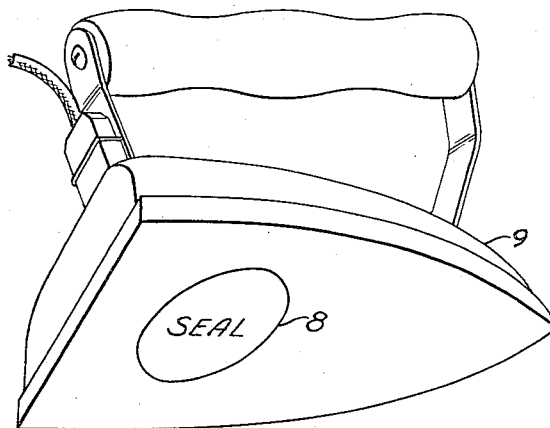


Fig. 3.



INVENTOR

Willard F. Greenwald

BY

Reinic Davis, Warren & Edwards
ATTORNEYS

UNITED STATES PATENT OFFICE

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IDENTIFYING MARK

Willard F. Greenwald, New York, N. Y., assignor
to General Electric Company, Schenectady,
N. Y., a corporation of New York

Application March 15, 1939, Serial No. 261,924

1 Claim. (Cl. 116—114)

This invention relates to identifying marks or labels, particularly those applied to devices which become heated when subjected to normal use. Various applications of the invention include the identification of electric lamp bulbs, radio tubes, electric heating appliances, and the like.

Electric lamp bulbs and radio tubes usually have the manufacturer's trademark etched upon the glass or stamped on the base. Electric heating appliances are ordinarily identified by attached tags, or labels of various kinds. None of these afford any assurance to the purchaser that the device is actually new, since the dealer may and often does sell devices which have been reconditioned or used and returned to stock without informing the purchaser of the facts. Purchasers often lose a substantial part of the expected life of the product and pay more for the product than it is actually worth.

It is the object of the present invention to provide a mark or label for devices which will be obliterated or will change color after the mark has been subjected to the normal operating temperature thereof for a relatively brief period, thus affording a warning to the purchaser if the device has been used, and assurance that it is new if the mark or label is in its original condition.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawing, in which:

Fig. 1 is a view in elevation of an electric light bulb embodying the invention;

Fig. 2 is an end view of the bulb; and

Fig. 3 is a perspective view of an electric iron illustrating the application of the invention.

The drawing is merely illustrative, it being evident that the invention may be applied in a variety of different ways to different devices. Hence in describing particular applications of the invention, it is not my intention to limit the generality of its use.

In utilizing the invention, the mark or label will usually consist of or include a trademark or similar identifying mark of the manufacturer. It may, however, consist merely of any mark, symbol or legend. It may be applied to any part of the device where it will be subjected to the normal temperature of the device in use.

Since electrical devices are often tested briefly before delivery to the customer, the mark should not be obliterated or changed in appearance by momentary heating. The substance or compound employed is consequently such that a

controllable time interval is required to effect the change in appearance. The mark in the form of a suitable medium is applied to any convenient surface where it will be subjected to the normal operating temperature of the device, by printing, stamping, painting, decalcomania or otherwise.

Various materials are available for use in such media. These materials include compounds, dyes or pigments which volatilize or lose or change their color on the application of heat, compounds, dyes or pigments with oxidizing agents which oxidize and destroy or change the color of the pigment when heat is applied, and various other compounds or mixtures which are similarly affected, such as those having ingredients which react upon the application of heat.

To illustrate the invention, reference is made to the drawing showing an electric lamp bulb having a mark printed or otherwise disposed on the glass. The ink used may be of such a nature that when the filament is lighted the heat generated will cause the mark to fade or to change color, for example, from red to black, after a brief interval. Hence the purchaser is advised that the bulb is new if the mark is in its original condition, or that it has been used if the mark is obliterated or changed in color.

Similarly, the mark may be applied to the wall of an electrically heated appliance, such as an electric iron. As soon as the device is used for any substantial period, the mark may disappear or change color, thereby indicating that the device is not new. Any of the common electrically heated appliances may be so marked to ensure that the device sold is actually new and unused.

The invention has a further advantage in that, if a trademark is used, the attention of the purchaser is directed to the trademark which identifies the manufacturer. The purchaser will be warned to look for the mark to determine whether or not the device is new. At the same time, he will be assured that he is getting a device from the particular source which he prefers. Passing off of inferior merchandise is thus avoided.

It is unnecessary to attempt to describe all suitable media for the application of the mark, since there are numerous materials which alone or in combination will serve the purpose. The following examples will serve to illustrate various inks which may be used. Other inks, paints and decalcomania media of similar and different

compositions may be employed for the purpose of the invention.

1. An example of a dye which volatilizes with heat is demethylaminoazo benzene supplied to the market by National Aniline and Chemical Company as National oil Yellow No. 2625.

2. An example of an oxidizing material which would change color is any of the compositions used on safety matches, such as:

	Parts
10 Potassium chlorate-----	50-52
Potassium dichromate-----	3-4
Sulphur-----	5
Ferric oxide-----	10
15 Zinc oxide-----	7
Glue-----	10-15

3. An example of a change in color without oxidation is:

	Parts
20 Antimony pentasulphide (golden anti- mony sulphide)-----	5
Ammonium bisulphate-----	5
Enough alcoholic solution of shellac to make a binder.	

- 25 On heating, this changes from orange to black. In the case of an incandescent bulb the mark would have to disappear, as it would disfigure the appearance of the bulb. With a radio tube,

however, that is not important, as the tube is enclosed in the radio set. The manufacturer would want his name to stay on the tube even after the tube has been in use, so that the purchaser could readily see it on renewing tubes. Therefore on radio tubes a change in color would be preferable. 5

The advantages of the invention in preventing substitution and the sale of used products as new are self-evident. The purchasing public with the minimum of effort can readily detect attempts to dispose of inferior products and ensure itself of full value for the money paid. 10

Various changes in the form, arrangement and mode of application of the invention may be made without departing from the invention or sacrificing the advantages thereof. 15

I claim:

An article of manufacture adapted to become heated in normal use having an identifying mark comprising a medium applied to the surface of the article, which medium will withstand, without modification, heating at the normal operating temperature of the article for a period long enough to permit testing of the article, but will disappear upon heating for a predetermined period longer than that necessary for testing of the article. 20 25

WILLARD F. GREENWALD.