

UNITED STATES PATENT OFFICE.

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WASHING COMPOUND.

1,144,186.

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No Drawing.

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To all whom it may concern:

Be it known that I, JOSEPH THOMAS FREESTONE, a subject of the King of England, residing at Colonial House, Water street, Liverpool, in the county of Lancaster, England, have invented new and useful Improvements Connected with Washing Compounds, of which the following is a specification.

This invention has reference to compounds or substances used for washing clothes, textile domestic articles, and the like.

Attempts have been made from time to time to provide a washing compound or substance which shall have, in addition to a strong or active cleansing or deterging effect, a bleaching action; and these effects have been proposed to be produced by the use in the compound, of a volatile alkali such as an ammonia compound, and an oxygen carrier, which upon being subjected to hot water will give off oxygen, producing the bleaching effect upon the articles being washed in the water. Such proposed compounds have, in a few cases, been put on the market, but they have not proved satisfactory, and the primary object of the present invention has been to provide an article or compound of this character in which the defects of the goods as hitherto produced and sold, are overcome, and the article rendered a practical or marketable and commercial one; while also a further object has been to provide an article having these qualities, which is more easily and conveniently used, and without waste. According to this invention this object is accomplished by making the article, which includes the oxygen carrier referred to, up into a solidified and solid tablet or block, rendered proof against the escape of vapors or gases from the ingredients by a seal, film covering, or envelop of wax, preferably paraffin or like wax (which in itself has beneficial properties); and which also renders it proof against the entrance of air or moisture from outside; so preventing the article from being affected detrimentally by being exposed to the action of the atmosphere and its contained moisture.

A washing compound according to this invention may comprise in addition to the oxygen carrier, a suitable soap, acting as a cleanser; and a suitable washing alkali, acting as a cleanser. The oxygen carrier and producer is an alkaline perborate—preferably perborate of soda—or its equivalent,

the oxygen produced from it when being used, acting as a bleaching medium. There may also be used a suitable ammonia compound, such as ammonium sulfate, which will give off ammonia gas by contact with water, and which will act as a cleanser. These ingredients are solidified into a tablet or block, and inclosed in a jointless envelop of paraffin wax or other suitable film covering, which will melt in the temperature used in hot washing water. In a solidified tablet or block there is combined in the compound, the oxygen carrier, namely, perborate (say perborate of soda); a washing alkali; and liquid hydro-carbon; and in some cases, there may be also compounded with it, borax.

The ingredients of the compound are first compressed together in a press to a high degree, similarly as ingredients are compressed in the making of medical tablets; and this compressed compound, say in the form of more or less cylindrical, globular, or cubical blocks or tablets, is then furnished with a jointless envelop of the paraffin or equivalent wax, or protective film, by one or more dippings into the molten wax, or otherwise, as may be convenient; and when so enveloped and sealed by this non-porous or impervious seal or envelop the article according to this invention is complete.

As an example of the constitution of a washing tablet or block under the invention the following are the ingredients and their percentages, but these are indicative only—washing alkali (soda ash), preferably not under 50%; perborate of soda, preferably not under 8%; soap, preferably not under 35%; ammonia compound, preferably not under 5%; petroleum, 1%, and borax, 1%.

As a modified example of washing compound according to this invention, the proportions by weight may be:—200 to 400 parts of ammonium sulfate, 100 to 200 parts soap, 150 to 300 parts of perborate of soda, 200 to 400 parts of washing alkali (say soda ash), 20 to 40 parts of petroleum or like spirit having a flashing point over 73 degrees F.

In case borax is used, 75 to 125 parts of this ingredient may be in the compound.

The washing article, according to this invention enables washing media or goods of the kind concerned, containing a substance which gives off bleaching gas, namely a perborate, and cleansing gases when in contact

with hot water at the temperature used in washing clothes to retain their full quality in these respects for a relatively long time. That is, they do not deteriorate materially, and being sealed, vapors or gases cannot be emitted or disappear; nor can they, or any of the ingredients be acted upon by the atmosphere or be affected by moisture in it; whereas, heretofore, it is in respect of the absence of these qualities, that washing compounds of the kind concerned, which have been proposed and put on the market, have been unsatisfactory.

In use, the tablets or blocks of regulated size capacity, are simply introduced into the boiler or vessel in which the clothes are being boiled or washed, and according to the amount of water so will be the number of articles or blocks put in. The first effect is that the hot water dissolves the paraffin or like wax, which in itself as stated, is a beneficial medium; and then the hot water acting upon the oxygen containing substance in its preserved active state, causes the oxygen gas to be given off readily, and with its undiminished bleaching and cleansing activity and quantity, whether it has been newly manufactured or made some time. The am-

monia gas will be also liberated from the ammonia compound when used. Furthermore, this washing article in the form described, is very convenient for use, for as there is no necessity for any measuring, as one of the blocks or tablets being adapted for use in connection with a given quantity of washing water, it is at once known whether, one, two, or more are to be thrown in. And moreover there is no waste, as exists in connection with the use of washing compounds made up in powder form, which frequently constitutes a large portion of the cost of the washing as regards the actual washing materials used.

What is claimed is:—

A cleaning block comprising in combination ammonium sulfate, soda ash, a hydrocarbon, sodium perborate and soap all combined to form a solid cake and a coating of paraffin covering said cake.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH THOMAS FREESTONE.

Witnesses:

L. GOODALL,
ANDREW TAYLOR.