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CRAYON

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This invention relates to a new article of manufacture and especially to crayons which may be utilized in the production of fluorescent, phosphorescent or similar effects.

In its more specific aspect the invention is directed to a crayon which may be employed in a dark room and which will be visible when invisible ultra-violet light impinges thereupon.

At the time of my invention dark rooms have been employed in the carrying out of a number of operations in certain fields. The operator when employed in rooms of this character may find it advisable to refer to a certain diagram or other information. This he may wish to do without having visible light within the room. In order that this may be possible, I have prepared a crayon which may be employed in writing upon a wall or board, and the characters formed by my crayon will be visible when invisible ultra-violet light is impinged thereupon because of the fluorescent effect evidenced by the impingement of said ultra-violet light upon said characters formed by my crayon.

An object of my invention is to provide an article of manufacture which will become visible when invisible light impinges thereupon.

Another object of my invention is to provide a crayon having good writing characteristics and which characters formed by said crayon during the writing operation will be visible when invisible light or other radiation is directed thereagainst.

In the preparation of this crayon I am concerned with three main features; first, a crayon which is relatively soft but does not crumble or readily chip; secondly, a crayon which does not scratch; and, thirdly, a crayon having the aforementioned characteristics and whose characters formed by writing therewith will have good fluorescent properties when subjected to invisible light, as for example ultra-violet light.

In its briefest aspect, the invention is directed to an article of manufacture, such as a crayon, comprising a bodying material, a substance adapted to be excited and whose excitation is a result of visible or invisible light impinging thereupon and evidenced by visible light, and a means adapted to interlock the bodying agent and said excitable substance.

In order that the invention may be clearly apparent and readily practiced, I shall illustrate the same by describing a crayon adapted for writing on a wall or board and whose characters resulting from said writing are visible when invisible ultra-violet light impinges thereupon.

In the preparation of my novel crayon I may employ a commercial anthracene, uranyl salt or the like. The anthracene and the uranyl salts fluoresce in the presence of ultra-violet light. In place of either one of these two substances I may employ any other substance which fluoresces in the presence of ultra-violet light or I may employ a substance which phosphoresces in the presence of any other medium. In short, it is within the purview of my invention to employ any substance whose excitation is a result of the impingement of visible or invisible light thereupon and evidenced by visible light.

The anthracene which I employ is commercial anthracene. This substance is preferably first subjected to a grinding operation so as to reduce the flakes thereof to such a fineness as to pass about a 100 mesh screen. Then a predetermined quantity of plaster of Paris, or some other interlocking agent, is thoroughly mixed with a predetermined quantity of suitable bodying agent, as for example prepared chalk or acacia. At this state a predetermined quantity of finely divided anthracene is added to the admixture of prepared chalk and plaster of Paris. These three substances are thoroughly mixed with each other so that there shall be a uniform distribution of the three substances throughout the volume of the same. When this is accomplished a suitable quantity of water is added to said mixture while the same is stirred. After the water is added, the pasty mass is further stirred for a very short period of time.

This paste is then run into suitable molds and allowed to set. After the mass in the molds has become sufficiently set it is removed therefrom in the form of crayons, simulating in size and appearance ordinary blackboard chalk.

In the course of my experiments with crayons I have found it advisable to employ acetone together with the foregoing constituents in order that a more uniform distribution of the anthracene might be obtained throughout the crayon. The acetone may be combined with the anthracene prior to introducing the anthracene into the mixture of the prepared chalk and plaster of Paris.

The following formula illustrates the quantity of substances which I prefer to employ in making my crayon:

Anthracene	6 grams
Prepared chalk	20 grams
Plaster of Paris	50 grams
Acetone	10 c. c.
Water	40 c. c.

Although the above formula indicates a preferred embodiment of my invention, I may prepare a crayon containing no acetone or no prepared chalk or other bodying agent. I have found, however, that a crayon that contains no prepared chalk is hard and has a tendency to scratch.

The scope of this invention is not to be limited to the exact constituents and proportions illustrated, but only by the prior art.

What I claim is:

1. A crayon comprising a substance whose excitation is a result of impingement thereupon of visible or invisible light waves and evidenced by visible light, prepared chalk and plaster of Paris.

2. A crayon comprising anthracene, prepared chalk and plaster of Paris.

3. A crayon comprising by weight six parts of anthracene, twenty parts of prepared chalk and fifty parts of plaster of Paris.

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