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LEAD PENCIL LEAD

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1 Claim. (Cl. 106—19)

1

This invention relates to an improved composition for forming leads used in lead pencils and it is one object of the invention to provide a lead having special ingredients mixed therewith which impart increased opaqueness to the lead and thus cause lines drawn with a pencil to be sharper and more clearly defined.

Another object of the invention is to provide an improved pencil lead wherein the opaqueness may be controlled by mixing predetermined quantities of cadmium yellow or chrome to clay which is then mixed with graphite to form the improved lead pencil lead.

Another object of the invention is to provide an improved lead pencil lead formed of ingredients which are readily obtainable and are easily mixed with each other.

The ingredients used for producing the improved lead pencil lead are, as follows:

30% Cadmium yellow or Chrome yellow, mixed with
30% clay, the mixture being then mixed with
40% graphite.

While the above formulae specifies proportions which have been found desirable to produce lead pencil leads for drawing lines of maximum opaqueness or density, it will be understood that various changes in the proportions and minor details may be resorted to without departing from the spirit of the invention.

When the improved lead is being made and it is desired to have a maximum degree of opaqueness, which is greater than heretofore obtainable, cadmium or chrome (red or yellow) is mixed with damp clay in the proportions set forth until they are thoroughly intermingled. After the cadmium or chrome has been thoroughly mixed with the clay, the mixture is added to the graphite in the proportion called for and

2

thoroughly mixed therewith. The mixture is then ready for proceeding in the usual manner, which consists of extruding the mixture through dies under extreme pressure, cutting the extrusion into pieces of the desired length which are laid out to dry until they may be handled, and then placing the leads in a crucible and firing them with intense heat and thus forming finished leads of predetermined dimensions and hardness.

The advantage obtained by forming leads for pencils as set forth is that a pencil having the improved lead, especially a drawing pencil, will make lines which are very opaque and produce a drawing from which clear blue prints or photographic copies may be made showing pencil lines which are very sharp and clear. In tests, it has been found that drawings made with pencils provided with the improved lead have lines which are, at least, 25% greater in opaqueness than drawings made with pencils now available.

Having thus described my invention, what is claimed is:

A lead pencil lead consisting of 30% cadmium yellow, 30% clay and 40% graphite.

References Cited in the file of this patent

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