Patented Mar. 14, 1939 2,150,786

UNITED STATES PATENT OFFICE

2,150,786

METHOD OF PROTECTING ALKALI CYANIDES

Joseph H. Schmitt, Red Bank, N. J.

No Drawing. Application September 4, 1937, Serial No. 162,518

4 Claims. (Cl. 23—243)

This invention relates to a method of protecting alkali cyanides and more specifically to provide a coating on the crystals of alkali cyanides which protects the cyanide from contact with the air. It is a well-known fact that when cyanide crystals are subjected to the action of air the carbonic acid of the air attacks the cyanide and generates an injurious gas, and my improved method is designed to prevent this and to act to preserve the cyanide from deterioration.

In the use of cyanide compounds for metal treating, the cyanide is melted in a hot furnace equipped with a hood which is used to carry off the exhaust gases. In this manner the dangerous cyanide fumes are carried away from the worker in the room in which the operation is performed. However, in the removal of the cyanide from the drum in which the cyanide is agitated the worker is subjected to the dangerous fumes given off from the cyanide compound.

I propose to provide each crystal of the cyanide with a protective coating which will prevent contact of the air with the cyanide. In carrying out this method I preferably, while agitating the cyanide crystals in a suitable mixer, subject the same to a material which will coat each crystal. I have found that ordinary hydrocarbon oil of low grade will efficiently perform this function, and in the method I employ I spray the oil on and over the cyanide crystals while they are being agitated thus coating each crystal and preventing it from contacting with the air.

It is of course to be understood that I do not wish to be limited to the use of oil as a coating as it is well within the scope of the invention to coat the cyanide crystals with other material such, for example, as molasses and water, coal tar, lacquer, etc., but desire to cover the idea broadly of coating crystals of cyanide which prevents contact of air with the cyanide crystals.

I claim:

1. As a new article of manufacture, cyanide crystals having a coating of hydrocarbon oil thereon which prevents contact of the air with the crystals.

2. The herein described method of protecting cyanide crystals and preventing the formation of injurious gas, which consists in agitating the crystals in a suitable container and while agitating the crystals subject them to a coating of an inert oil selected from the group consisting of hydrocarbon oils and coal tars, which will adhere to the crystals and coat the same.

3. The herein described method of protecting cyanide crystals and preventing the formation of injurious gas, which consists in agitating the cyanide crystals in a suitable container and while agitating the crystals subject them to a coating of hydrocarbon oil which is sprayed thereon.

4. As a new article of manufacture, cyanide crystals having a coating of an inert oil selected from the group consisting of hydrocarbon oils and coal tars which prevents contact of the air with the crystals, said coating being applied to the outer surface only of the crystals.

JOSEPH H. SCHMITT.