UNITED STATES PATENT OFFICE.

T. CHALKLEY TAYLOR, OF PHILADELPHIA, PENNSYLVANIA.

PACKING CAUSTIC ALKALI.

SPECIFICATION forming part of Letters Patent No. 270,998, dated January 23, 1883.

Application filed June 12, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, T. CHALKLEY TAYLOR, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Preparation of Caustic Alkalies, of which the following is a specification.

My invention has relation to the preparation of caustic alkali in a convenient marketable form; and to that end the novelty consists in combining the alkali with a suitable material that will allow the safe and ready handling of it and prevent deliquescence. The caustic alkali is taken in bulk and ground more or less fine, and during the process of grinding quantities of fatty, oily, or resinous substances are added, which will effectually prevent the rising of the caustic dust. It is a fact well known that in grinding these caustic alkalies, the dust which is given off during the process is very injurious to the health of the operators, and likewise destructive to the skin or exposed parts that it may come into contact with. Moreover, should the atmosphere be the least humid, the alkali very rapidly deliquesces, and consequently its caustic qualities are destroyed. These evils I effectually overcome and prevent by my improved process, for the addition of the oily or resinous matter prevents the dust from rising, and the particles of alkali are immediately enveloped with a coating of the oily matter, and consequently the air does not have access to or come into contact with the surface of the particles. Therefore no chemical change or deliquescence can take place. As the mass in this mixed state comes from the grinding-mill it is packed in suitable packages for market.

In practice the fatty or resinous matter may be one which will ultimately enter into the composition of soap should the mass be used for that purpose; but I do not wish to confine myself to a substance capable of saponification, as it is evident that any non-aqueous liquid will accomplish the purpose in view—the prevention of dust and deliquescence. Where the alkali is obtained in a powdered or ground state in bulk, I then mix the fatty matter with it, so that the repacking of it in small quantities for market can be safely and rapidly accomplished, as the dust is kept down and all injury prevented to the operators.

Having thus described my invention, what I claim is—

The improvement in the art of pulverizing caustic alkali which consists in adding a fatty or resinous matter to caustic alkalies during the process of grinding or preparation thereof to prevent the giving off of the caustic dust, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

T. CHALKLEY TAYLOR.

Witnesses:

E. H. BRADFORD,

H. J. ENNIS.