

UNITED STATES PATENT OFFICE.

FREDERICK JACOB DELKER, OF ASHLAND, PENNSYLVANIA.

IMPROVEMENT IN COMPOUNDS FOR PURIFYING MINE-WATER.

Specification forming part of Letters Patent No. **110,345**, dated December 20, 1870.

To all whom it may concern:

Be it known that I, FREDERICK JACOB DELKER, of Ashland, in the county of Schuylkill and State of Pennsylvania, have invented a new and valuable Improvement in Medical Compounds; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to means for purifying the water found in mines of coal and iron; and consists in a novel compound of chemical ingredients intended to serve efficiently in neutralizing the offensive acids and other like impurities in which the waters of such mines abound.

I take of strong lime-water, twelve ounces; of prepared chalk, four ounces; of sal-soda, one ounce; and of peroxide of lead, one-half ounce, and place them in solution in as small a quantity of water as will hold them in that state.

The mixture, thus compounded, is poured into a tank of mine-water in such quantities as the nature and amount of impurities therein may require, the only rule being to keep add-

ing the mixture to the water until the impurities are removed.

I do not desire to be limited to the precise proportions mentioned above, inasmuch as lime-water varies in the amount and character of its impurities, thereby rendering it sometimes necessary to change the formula to some extent—as, for example, if the mine-water contains a larger amount of acid matter the chemist should add a larger quantity of chalk than is herein mentioned.

Claim.

I claim as my invention—

The combination of the ingredients herein mentioned, for the purposes specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

F. J. DELKER.

Witnesses:

B. FRANK KESTER,
H. HOLBERT.