

UNITED STATES PATENT OFFICE.

JACOB WISTER, OF GREENCASTLE, PENNSYLVANIA.

IMPROVED MODE OF GRINDING BONES FOR MANURE, &c.

Specification forming part of Letters Patent No. **54,635**, dated May 8, 1866.

To all whom it may concern:

Be it known that I, JACOB WISTER, of Greencastle, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in the Mode of Grinding Bones for Manure; and I do hereby declare that the following is a full and exact description thereof.

My invention consists in the use of hard plaster (plaster-of-paris or sulphate of lime) mixed with bones for the purpose of facilitating the grinding of the latter without clogging the mill or gumming the same.

The value of bone-dust as a manure is much increased in proportion to the fineness of the dust of the grinding; but, on account of the oily nature of bones, they are liable to gum the mill, and thus prevent the successful grinding of the bones to the desired degree of fineness.

By my improved mode of grinding bones I can easily produce a bone-dust as fine as corn-meal, and I find no difficulty from gumming even when I use the French burr-stones.

My mode of grinding bones is as follows, and is not limited to the particular construction of the mill employed: In the first place the bones may be broken in the usual manner by heavy stampers to about the fineness of shelled corn, (maize,) when my improvement may be applied. This crushed bone is well mixed with fragments of hard plaster, in the proportion of, say, ten pounds of plaster to two hundred pounds of bone, and the mixture fed from the hopper to the mill in the usual

manner. By this simple plan I find it easy to grind bones on a hard French burr-stone without gumming the mill, and to produce a bone-dust as fine as corn (Indian) meal. The plaster, being softer than the bone, is ground into very fine dust, which is mostly blown away by the wind produced by the motion of the stones. The remaining plaster may be almost entirely separated from the bone-dust by passing the latter over a fine sieve. The use of the plaster in this way keeps the face of the burr clean, and the process of grinding is not only more perfect, but more rapid.

I do not confine my invention to the precise mode above described, nor to the use of plaster alone, as the details may be somewhat varied, and different materials may be used in place of plaster, or different mills employed, without departing from my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

Mixing hard plaster (plaster-of-paris or gypsum) or its equivalent with bones, and grinding such mixture for the purpose of facilitating the process of grinding and preventing the mill from gumming, substantially in the manner and for the purposes set forth.

JACOB WISTER.

Witnesses:

WILLIAM KUPS,
H. P. PRATHER.