

UNITED STATES PATENT OFFICE.

LEWIS BUCHHOLTZ, OF RICHMOND, VIRGINIA.

IMPROVED BLASTIC COMPOUND.

Specification forming part of Letters Patent No. **15,551**, dated August 19, 1856.

To all whom it may concern:

Be it known that I, LEWIS BUCHHOLTZ, of Richmond, in the county of Henrico, in the State of Virginia, have invented a new Composition of Explosive Powder; and I do hereby declare that the following is a full and exact description of manufacturing it thereof.

The composition consists of four ingredients—saltpeter, charcoal, lycopodium, and white sugar. Three different qualities are to be manufactured, according to price and use.

Minimum and maximum parts to be taken of each of these ingredients.

	Minimum.	Maximum.
Saltpeter.....	45	80
Charcoal.....	20	10
Lycopodium.....	20	5
White sugar.....	15	5

The manufacturing will be done in a common gunpowder-mill. Charcoal will be put in the stamping and the mill set in motion; after half an hour's stamping, will be mixed to it saltpeter, and again after half an hour's stamping, will be put to it lycopodium and white sugar. The composition or the ingredients will be moistened with three-fourths of a pint of glue-water, and the stamping is to be continued without interruption an hour. After this time the composition is to be moistened with one-fourth of a pint of glue-water. After six hours of stamping the whole mass will be sticky or strong, and the mass from the stamping No. I taken out and put in the stamping No. II, the mass from the stamping No. II put in No. III, and from all the stampings in this manner the mass is to be changed. All this is carefully done. The stamping is to be continued again six hours, except when the mass during the above-mentioned times is to be moistened. Four times is the mass to be changed from one to the other stamping, each time six hours long, from one to the other charge, and after twenty-four hours is perfectly mixed up and finished the above-mentioned composition, and may then be pressed, grained, tried, and prepared for use.

The nature of this explosive composition, first, is that it cannot be made explosive either by friction or by a sudden shock; second, by

setting fire to it it burns like alcohol or paper, but very slow; third, in contact with red-hot iron it burns, but it ceases to burn if the iron is removed; fourth, suppose a magazine filled with such powder would be set on fire by any accident, it would burn out or down without any destruction by a sudden explosion; fifth, used for bursting rocks or shells it produces gases of the most intense heat, and effects a more powerful destruction than any other composition of gunpowder; sixth, it can be prepared without danger and at any place, it is less expensive than the manufacturing of gunpowder; seventh, the quantity to be taken for bursting purposes is in proportion from one to three, as, to be understood, one pound of this composition will have the same or a greater effect than three pounds of the common gunpowder.

My powder is not intended to be used as a projecting charge, but is used only as a bursting charge for shells by the agency of the fuse, the fuse whereof has an addition at the bottom of a small chamber containing five grains of common powder. The explosion of the latter envelops suddenly my blasting compound with burning gases, and in this way causes it to explode.

For blasting rocks a few grains of common powder may be poured into the bottom of the tube or on the top of the blast. The match is then inserted as usual; or the ordinary match may be inserted into the bottom of the bursting-charge. The hole of the blast is to be rammed up as tight as it can be. The gases produced from the match will be confined to the bursting-charge and will cause the bursting. I experimented in both the ways above mentioned, and always with success.

What I claim as my own invention, and desire to secure by Letters Patent, is—

The composition and application of the above-mentioned ingredients, whether in the ratio described or any other substantially the same, in the manner and for the purposes substantially as specified.

LEWIS BUCHHOLTZ.

Witnesses:

G. A. SCHWARZMAN,
W. EMERY.