

UNITED STATES PATENT OFFICE.

JOSEPH J. KULAGE, OF ST. LOUIS, MISSOURI.

PROCESS OF MANUFACTURING BRICK.

SPECIFICATION forming part of Letters Patent No. 516,378, dated March 13, 1894.

Application filed May 2, 1892. Serial No. 431,542. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH J. KULAGE, of St. Louis, Missouri, have made a new and useful Improvement in Processes of Manufacturing Bricks, of which the following is a full, clear, and exact description.

The improvement under consideration relates to an improved method of making bricks.

The improvement is adapted not only to many kinds of clay but also to other forms of earthy material suitable for bricks.

It consists substantially as follows: I take the clay, or other material out of which the bricks are to be formed, and, by means of ordinary appliances and procedures such as used by brick makers in manufacturing bricks by what is termed the wet or "mud" process, or by means of any equivalent means and method, press the material into certain shapes or forms, and preferably into forms of the shape and size of bricks: said forms are then dried more or less, and preferably to that degree of dryness which is usually required in preparing clay for a dry press brick machine; I then crush or more or less pulverize said dried forms and preferably to that degree of fineness which is employed in preparing clay for a dry-press brick machine; and I then form said pulverized material, by means of any of the usual dry or semi-dry brick machines, or any equivalent mechanism, into pressed bricks ready for burning. The subjection of the clay or other brick-forming material to a wet process treatment as herein set forth is an essential preliminary to the remaining steps of the method under consideration. The pugging, tempering, and disintegrating of the clay, &c., which are involved in carrying out a wet process, are necessary, especially in that thereby many kinds of clay, hard, tough, or tenacious clays, and shale, are brought into a plastic, uniform, condition, and rendered suitable for

the remaining steps of the process; the clays, after being thus treated are dried can be more easily, thoroughly, and completely crushed and pulverized than if it had not been thus treated; the material also yields more readily to pressure, and the texture of the resultant brick is finer, its surface smoother, its body more dense and compact, and generally the brick is of a superior quality. Furthermore, the pugging, tempering, and disintegrating treatment described is desirable in that it provides a convenient opportunity for adding and mixing with the clay, &c., such other material or materials as may be required or desired in producing any special color, hardness, or vitrification in the finished brick. The shaping of the clay, &c., after having been thus subjected to a wet process treatment, into forms is rather for the purpose of facilitating the drying of the material which if left to remain in large quantities or bulk would require too long a time to dry.

The present process is especially valuable in localities in which the conditions for obtaining dry clay are unfavorable.

I claim—

The hereindescribed method of making bricks, the same consisting in subjecting the clay, or other brick-forming material, to the same treatment substantially as is required for making bricks by the ordinary wet processes, then pressing said material into forms, then drying said forms, then crushing or pulverizing said dried forms, and then forming said dried, crushed, or pulverized material into unburned bricks, and then burning the same.

Witness my hand this 29th day of April, 1892.

JOSEPH J. KULAGE.

Witnesses:

C. D. MOODY,
A. BONVILLE.