

UNITED STATES PATENT OFFICE.

JOSEPH B. DUNLAP, OF TONKAWA, OKLAHOMA TERRITORY.

BRICK.

SPECIFICATION forming part of Letters Patent No. 721,030, dated February 17, 1903.

Application filed October 14, 1902. Serial No. 127,250. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH B. DUNLAP, of Tonkawa, in the county of Kay and Territory of Oklahoma, have invented a new and useful Improvement in Bricks, of which the following is a specification.

My invention is in the nature of a novel composition of brick or building-block to be used for all purposes, either above or below ground, for which bricks are ordinarily employed; and it consists in a brick or building-block composed of sand and certain chemical binder ingredients combined in the manner hereinafter described.

The chemical ingredients of my brick, which form the binder, consist of soluble silicate of soda, (water-glass,) twenty-five pounds; carbolic acid, ten pounds; powdered alum, twenty pounds; powdered sulfate of copper, twenty pounds; water, forty-five gallons.

The powdered alum and sulfate of copper are first dissolved in the water. The carbolic acid is then added to the silicate of soda to cut it, and the two solutions are then poured together. When thoroughly mixed, the sand is added and thoroughly worked up and kneaded into a thick mortar, which is afterward pressed in molds and dried. The quantity of sand may vary according to the den-

sity required for the brick; but the quantity of chemical ingredients named in the formula is sufficient for twenty-five thousand bricks of the grade ordinarily used for building purposes.

These bricks do not have to be burned, but are ready to be put in the wall in ten to twelve days after being pressed, and being made in a die or mold and being free from the warping effect of heat are perfectly true in outline and regular in size.

These bricks have been put to severe tests as to freezing and for bedding in water and also stand a severe pressure test, one brick being able to sustain a load of twenty-seven tons.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A brick or building-block composed of sand as a base, combined with a chemical binder of soluble silicate of soda, carbolic acid, alum and sulfate of copper compounded in or about the proportions described.

JOSEPH B. DUNLAP.

Witnesses:

W. R. WHEELER,
HOMER A. ARENDS.