June 9, 1931. C. D. COSTE 1,809,160

LAMINATION DISINTEGRATOR

Filed Jan. 20, 1930

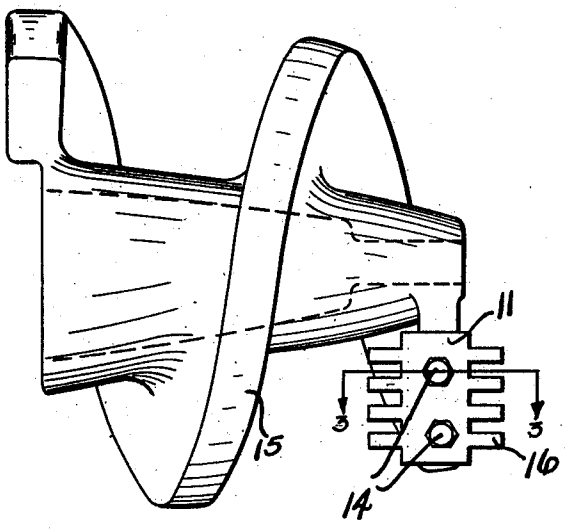


Fig. 1

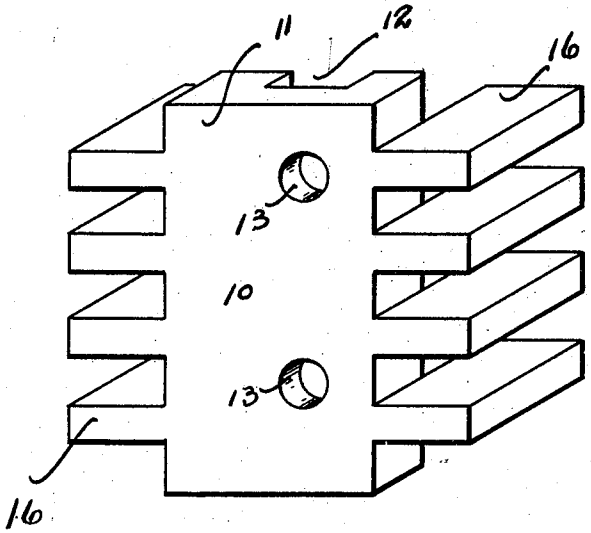


Fig. 2

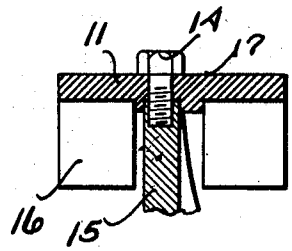


Fig. 3

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UNITED STATES PATENT OFFICE

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LAMINATION DISINTEGRATOR

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My present invention relates to improvements in lamination disintegrators in which they are designed primarily for use in connection with the brick-making industry in manufacture of brick to prevent laminations in the clay, which when burned, provide diagonal breaking angles that are undesirable and cause much waste in laying up brick in a wall.

In laying brick it is frequently necessary to use the edge of a trowel to cut off the brick to fit a required space. Since the brick-making machines in common use invariably make use of an auger for forcing the plastic clay through a die, this auger, in feeding the clay, builds up a series of laminations diagonal to the mass and which are harder on the surface and frequently do not combine with the mass of clay to provide a solid and integral brick composition.

By reason of these laminations, when striking a brick with a trowel, the tendency is for the brick to break diagonally, causing the fracture to occur along the lines of lamination thereby causing must waste of material and loss of labor.

It is essential that the clay mass in brick form should be integral and without grain so that the strength of the brick will be uniform, and of course it is highly desirable when the brick is cut that it break squarely across on the line of cleavage.

In the device of my invention I have provided means whereby the clay as it leaves the auger and is forced into the die, will be further treated to break up or disintegrate the laminations so that new faces are provided that will unite under pressure from the auger as the clay passes through the die.

The invention consists in certain novel combinations and arrangements of parts for accomplishing the above set forth purpose as will hereinafter be more fully set forth and claimed.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the features are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a side view of the usual type of auger with the device of my invention attached thereto.

Figure 2 is an enlarged perspective view of my disintegrator.

Figure 3 is a cross-sectional view taken on line 3—3 of Figure 1 through the disintegrator and through a portion of the auger showing the means of attachment thereto.

In the preferred form of my invention as illustrated in the drawings, the character 10 represents the disintegrator as a whole which consists of the base portion 11 having a groove 12 of the approximate width of the end of the blade of the auger 15 so as to fit snugly thereover.

Holes 13 are provided through the member 10 so that by means of cap screws 14, the disintegrator may be firmly attached to the terminal end of the auger.

The auger 15 is mounted in the usual brick-making machine as a feeder for the clay as it comes from the mixer, and it forces the clay through the die in a mass the width and length of a brick. This mass is later cut into slices corresponding to the desired thickness of the brick.

The base portion 11 carries a series of outstanding vanes or elongated fingers 16, flush with the upper face of the base 11 and depending therefrom so that they become adjusted along the terminal end of the auger.

As the auger revolves to force the clay into the die, laminations that have been formed by the action of the auger on the clay are squeezed through the fingers 16 and further acted upon by the fingers as the auger continues to revolve to disintegrate the mass at this point, and causing it to re-unite under pressure as it passes through the die. This provides a mass of uniform texture, thoroughly commingled and without grain or the aforesaid undesirable laminations.

By this means I have provided a brick which, when properly cured and burned, will be free of hard spots and which may be broken evenly upon the line desired.

Having thus fully described my invention

what I claim as new and desire to secure by Letters Patent is:—

1. In a lamination disintegrator a base, a groove in the base, means for attachment to an auger, and outstanding fingers at right angles to the longitudinal line of the base for the purpose specified.

2. In a lamination disintegrator a base, means for attaching the base to a revolving auger, a series of outstanding vanes on each side of the base, said vanes overhanging the end of said auger.

3. In a lamination disintegrator for the purpose described, the combination of a base, a series of outstanding fingers on the sides of the base and overhanging on one side thereof, and means for attachment to the terminal end of an auger.

In testimony whereof I affix my signature.

COSTANTE DALLA COSTE.