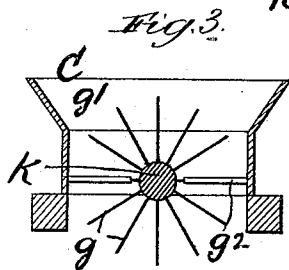
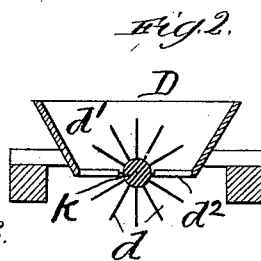
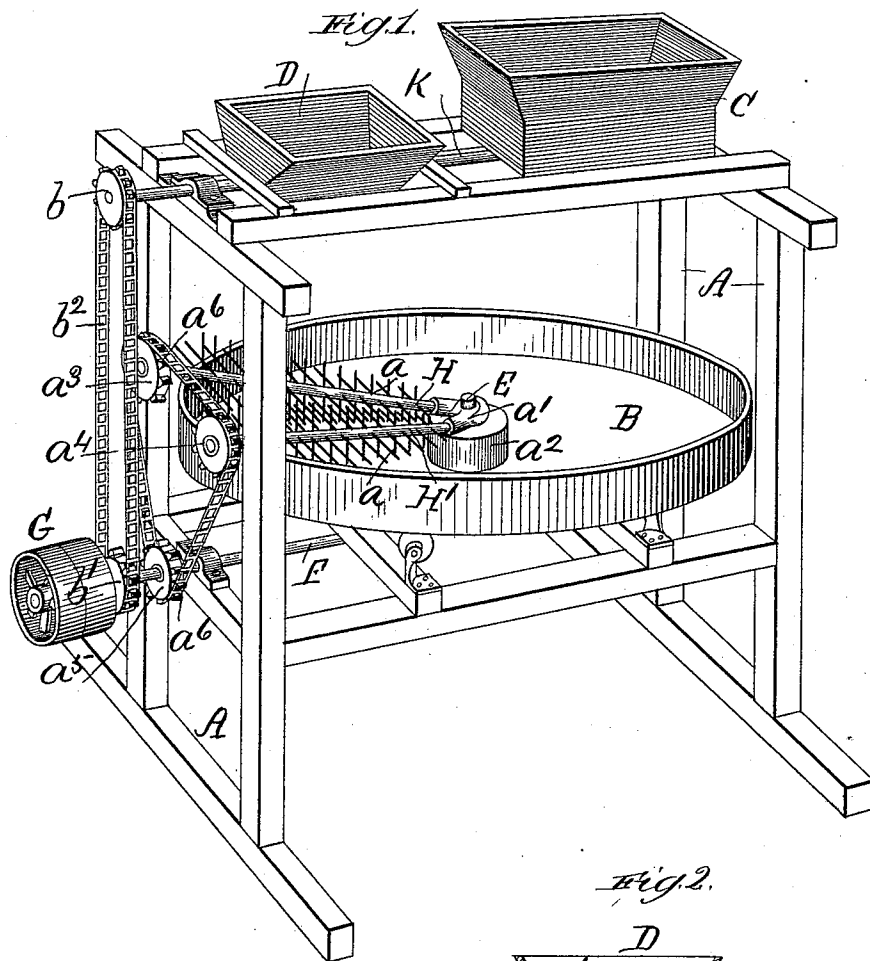


(No Model.)

D. J. DAVIS.
CURD GRINDER, WORKER, AND SALTER.

No. 466,048.

Patented Dec. 29, 1891.



Witnesses:

Edw. G. Clark,

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UNITED STATES PATENT OFFICE.

DANIEL J. DAVIS, OF CHICAGO, ILLINOIS.

CURD GRINDER, WORKER, AND SALTER.

SPECIFICATION forming part of Letters Patent No. 466,048, dated December 29, 1891.

Application filed October 18, 1890. Serial No. 368,516. (No model.)

To all whom it may concern:

Be it known that I, DANIEL J. DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curd Grinders, Workers, and Salters, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to a combined apparatus for the preparation of and manufacture of cheese; and the same consists of certain novel features in the construction, arrangement, and operation of the different parts, as will be hereinafter set forth.

The object is to provide an arrangement wherein the grinding, working, and salting of the curd are accomplished at one operation.

Figure 1 is a view in perspective of an apparatus embodying my improved features; Fig. 2, a transverse section of the salting attachment, and Fig. 3 a transverse section of the curd-grinding attachment.

Referring to the drawings, A represents the different parts of the supporting frame; B, the revolving dish-shaped working table; C, the grinding attachment, and D the salting attachment.

The circular working table B is rigidly mounted on the vertical shaft E, the lower end of which has the usual geared connection (not shown) with the inner end of the horizontal driving-shaft F. The band-pulley G on the outer end of the driving-shaft receives the usual belted connection from the motive power. The working shafts H H' rotate above the surface of the revolving table and are armed with a number of teeth a , which are adapted to have contact with the mass of curd on the working table. The inner ends of the working shafts have bearings in the bifurcated socket-piece a' , loosely mounted on the upper end of the vertical shaft E and resting loosely on the collar a^2 . The outer ends of these shafts have the sprocket-wheels a^3 a^4 mounted thereon, and are provided with suitable journal-bearings in the vertical members of the frame on that side of the machine. A sprocket-wheel a^5 is mounted on the driv-

ing-shaft, and motion is transmitted from the same to the respective working shafts by means of the chain belt a^6 running over the sprocket-wheels a^3 a^4 .

A horizontal counter-shaft K extends across the top of the supporting-frame and is journaled therein. A sprocket-wheel b is mounted on the projecting end of said counter-shaft, and a companion sprocket-wheel b' is mounted on the driving-shaft, the two sprockets being connected by the chain belt b^2 , by which means the required motion is transmitted to the counter-shaft. This counter-shaft is provided at one point with a number of projecting teeth d , (see Fig. 2,) which are inclosed by the box-hopper d' , set rigidly on the frame. This hopper-box is provided with a grated bottom consisting of a number of bars d^2 , arranged at spaced intervals, and between which the teeth on the inclosed part of the shaft pass when the shaft is in motion and gradually discharge the salt placed in the box onto the curd passing underneath. Thus the proper proportion of salt may be gradually added to a certain quantity of the curd.

The shaft K is provided near the opposite end with the series of radial teeth g , inclosed by the larger box-hopper g' . This box is also provided with a grated bottom consisting of the cross-bars g^2 , placed at intervals, the teeth breaking up and forcing the curd through and dropping the same onto the working table underneath.

This construction and arrangement provides a simple and convenient apparatus whereby the work may be done with facility.

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

1. In an apparatus of the character described, the combination, with the circular working table, of the vertical shaft upon which the same is mounted, the driving-shaft, the companion working shafts located above the table and armed with a number of teeth, the bifurcated socket-piece mounted loosely on the end of said vertical shaft and providing bearings for the inner ends of the toothed working shafts, the sprocket-wheels mounted on the respective outer ends of the working-shafts, the sprocket-wheel mounted on the

driving-shaft, and the link belt connecting said sprocket-wheels, substantially as and for the purpose set forth.

2. The combination, with the driving-shaft, 5 of the counter-shaft journaled on top of the frame and armed with radially-projecting teeth at two different points, the salt-box provided with a grated bottom and inclosing

one set of teeth, the curd-box inclosing the second set of teeth, the rotating table, and 10 means, substantially as described, for revolving the same, as and for the purpose set forth.

DANIEL J. DAVIS.

Witnesses:

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