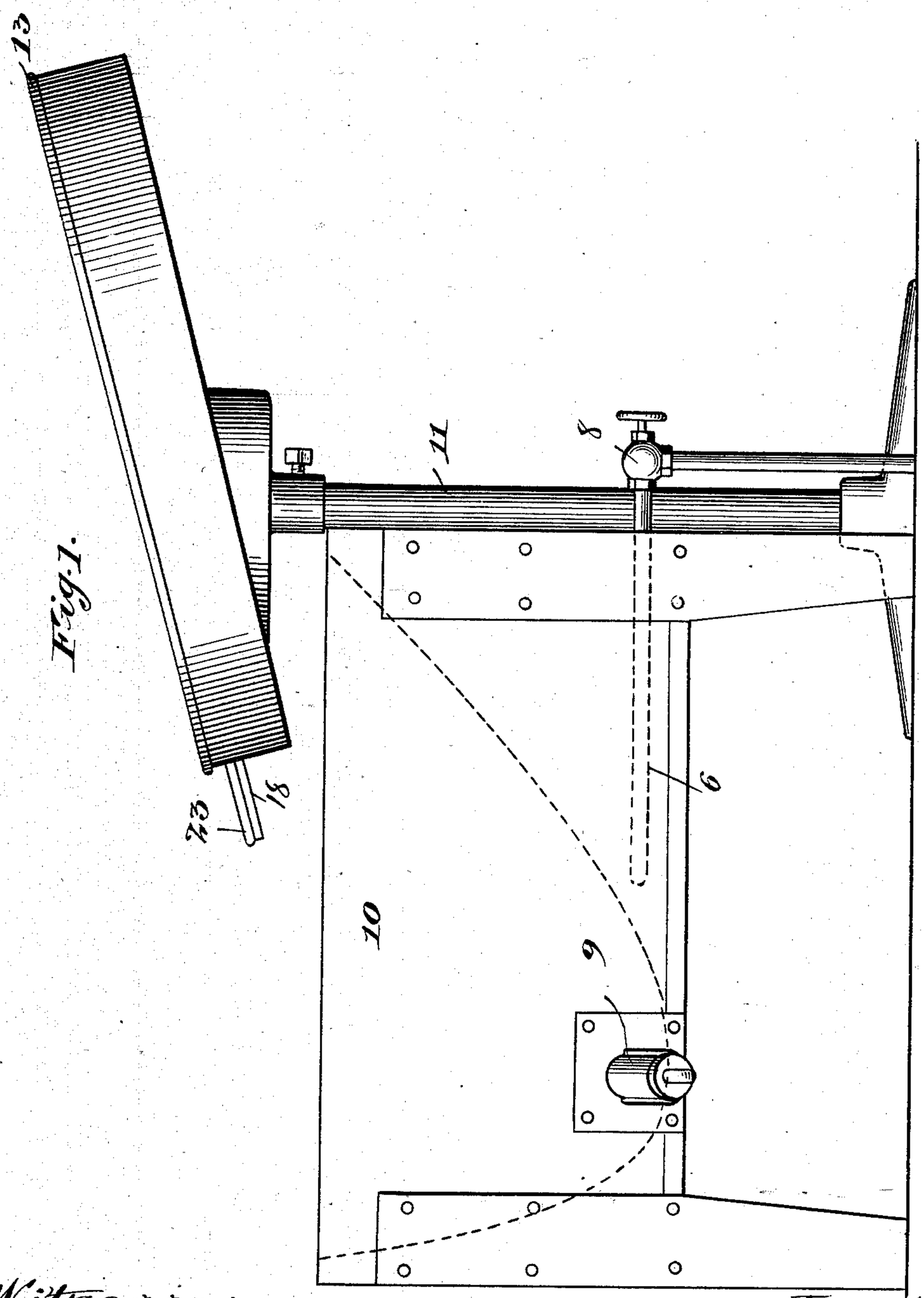
No. 714,418. Patented Nov. 25, 1902.

F. L. WETZEL.

APPARATUS FOR FACILITATING THE ICING OR COATING OF CAKES, BISCUIT, OR THE LIKE.

(No Model.) (Application filed July 5, 1902.) 3 Sheets—Sheet 1.

Fig. 1.



Witnesses,
S. D. Mann,
S. N. Pond.

Inventor,
Frederick L. Wetzel,
By Offield, Towle & Linthicum
Atty's.

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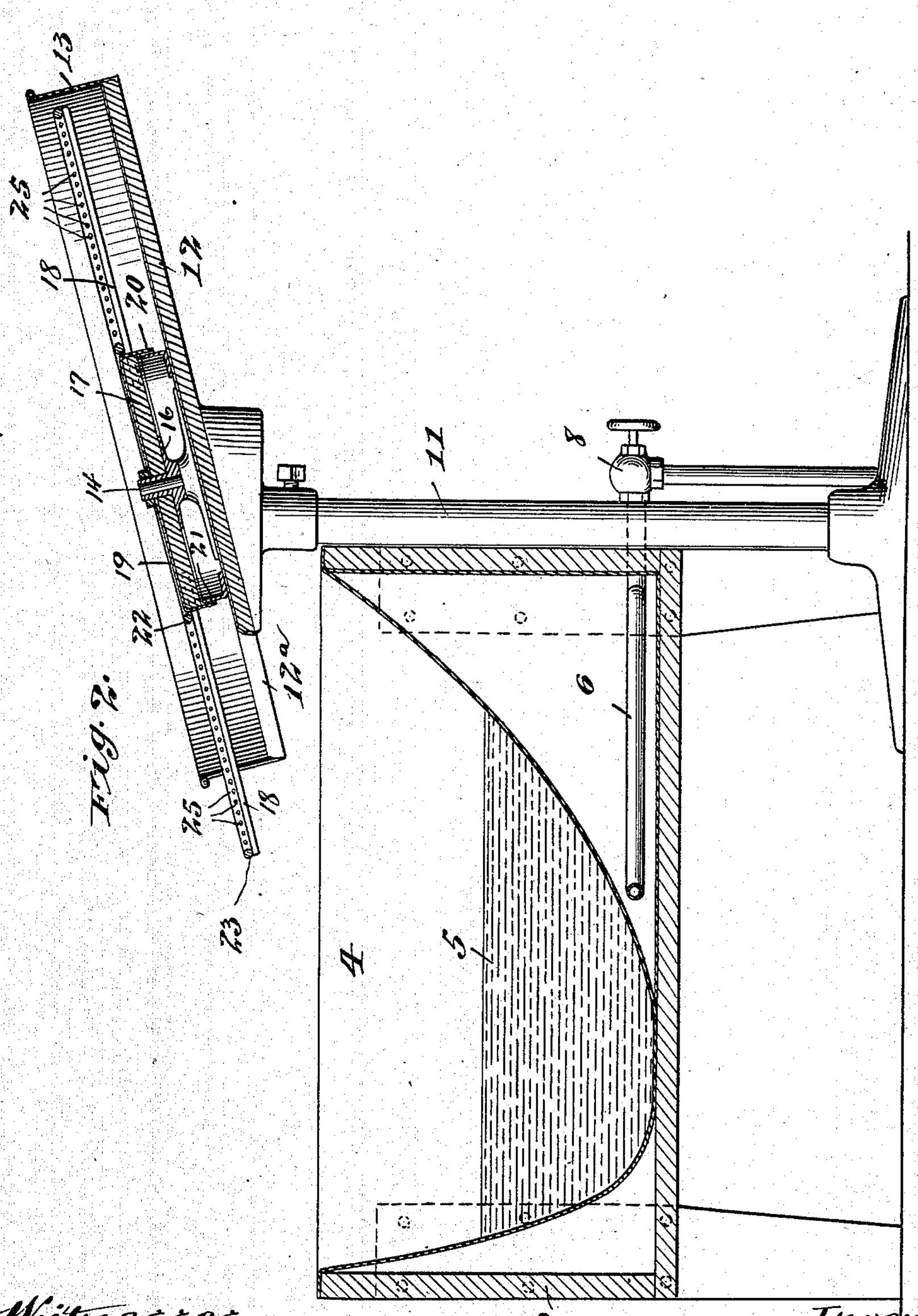

Fig. 2.

Witnesses,
F. D. Mann,
S. N. Pond.

Inventor,
Frederick L. Wetzel,
By Offield, Towler & Linthicum
Att'ys.

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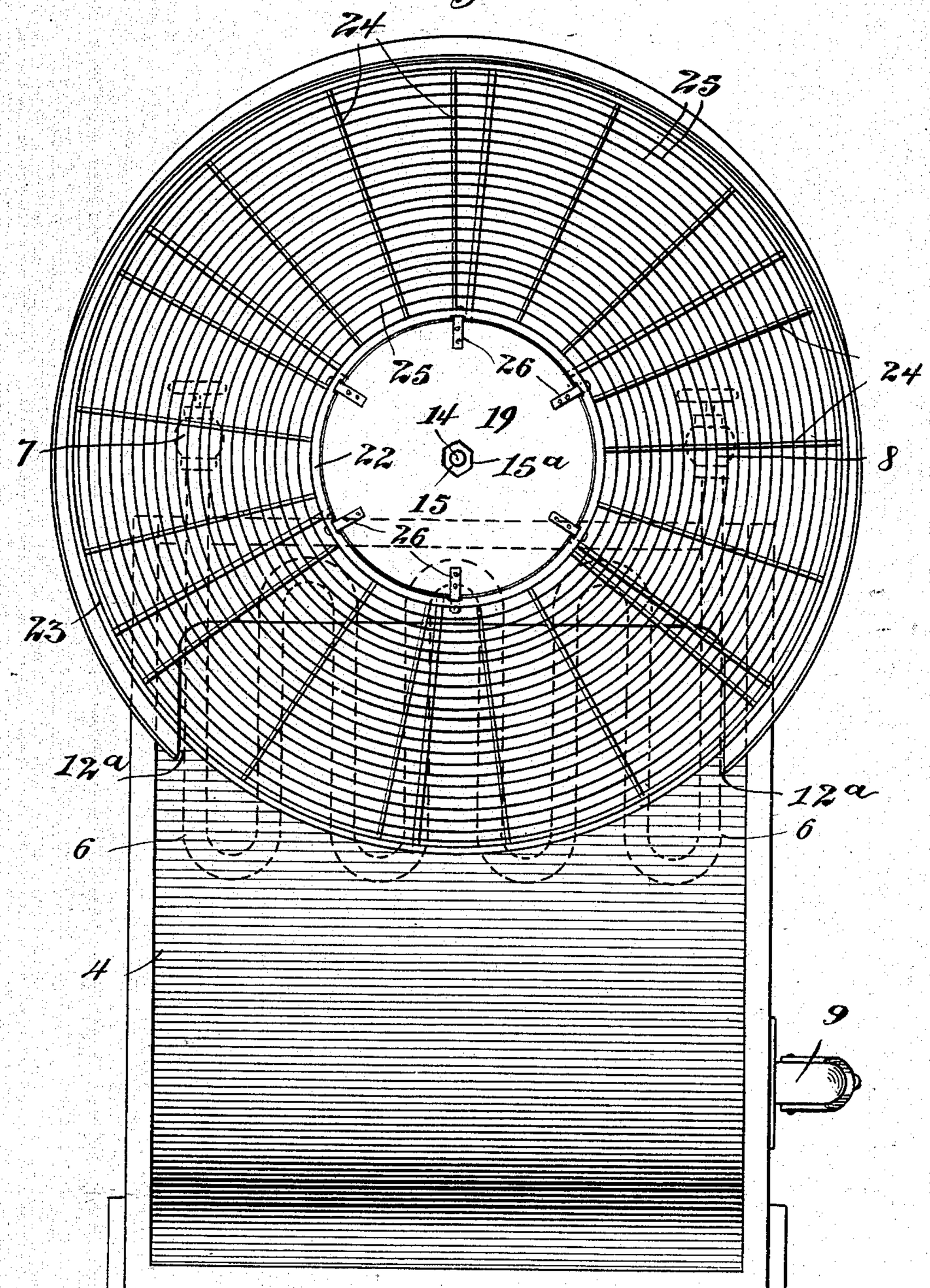
Fig. 3.



Witnesses,
S. D. Mann.
S. N. Tourd.

Inventor,
Frederick L. Wetzel,
By Offield, Towle & Linthicum
Attys.

UNITED STATES PATENT OFFICE.

FREDERICK L. WETZEL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO NATIONAL BISCUIT COMPANY, OF JERSEY CITY, NEW JERSEY, AND CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

APPARATUS FOR FACILITATING THE ICING OR COATING OF CAKES, BISCUIT, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 714,418, dated November 25, 1902.

Application filed July 5, 1902. Serial No. 114,464. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK L. WETZEL, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Apparatus for Facilitating the Icing or Coating of Cakes, Biscuit, or the Like, of which the following is a specification.

My invention relates to devices for facilitating the icing or coating of bakery products, such as fancy cakes, and has reference more particularly to a new and improved rotary table having as its principal function to partially dry the icing or coating on the goods, at the same time collecting and returning to the icing-vat the "drip" that runs from the cakes during the dripping operation.

Heretofore it has been usual in carrying out the icing or coating of cakes and biscuit, particularly with water-icing and chocolate coating, to dip them and stroke them off and then place them upon wooden trays for the purpose of drying the coating. This has resulted, particularly where the coating is thin and more of a fluid than a viscous nature, in causing a portion of said coating to run onto these wooden trays while the goods were in the process of drying, with the result of causing a large amount of waste, besides necessitating the cleaning of the trays after each period of use, both of which involved a considerable item of expense in the production of the goods.

The primary object of my present invention is to obviate the inconveniences and expense above referred to, and this I accomplish through the provision of a perforated table or like support which is rotatably mounted above a drip-catcher consisting chiefly of a smooth plane surface coextensive with the perforated table itself and downwardly-inclined toward the icing-vat and discharging thereinto.

A preferred mechanical embodiment of my invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the apparatus complete. Fig. 2 is a longitudinal vertical section therethrough, the supporting-pedestal of the table and drip-catcher being in elevation; and Fig. 3 is a top plan view.

Referring to the drawings, 4 designates the icing-vat, in which is contained a quantity of semifluid or viscous icing or coating 5, which is applied to the outer surface of the cakes, biscuit, or the like by dipping the latter therein and usually stroking them off thereafter. The icing is maintained at a proper temperature by means of a steam-coil 6, serving to heat a body of water underlying the vat and its contents, said coil being controlled by a pair of hand-valves 7 and 8. The icing may be drawn off from the vat when desired by a discharge-faucet 9, communicating with the bottom thereof at one side of the rectangular box or casing 10 containing the vat and its heating devices.

At one end of the casing 10 and in line with the longitudinal axis thereof is located a pedestal 11, supporting at its upper end an inclined circular plate 12, the lower portion of which overhangs the vat 4 and is cut away at 12^a through substantially the lateral extent of the vat, as best shown in the plan view, Fig. 3. This plate 12, which constitutes the drip-catching surface of the device, is bounded by an upstanding marginal flange 13, extending entirely therearound except for the cut-out portion overlying the vat, the plate and its marginal flange thus constituting, in effect, a drip-pan in which the rotary drip-table and its carrier next to be described are contained.

On a fixed stud 14, located centrally of and normal to the circular drip-plate 12, is rotatably mounted a bearing sleeve or hub 15, provided at its base with a radial flange 16, which seats a solid circular plate 17, which may be clamped fast thereon by means of a nut 15^a. Extending radially from the periphery of the plate 17 are a series of spokes 18, the rotatable parts last described constituting, in effect, a spider-support for the rotatable table hereinafter described, upon which the goods after they have been coated are placed to drip. Preferably, also, the plate 17 is covered by a sheet-metal cap 19, having a peripheral flange 20 overlying and depend-

ing below the peripheral margin of the plate 17 and engaging a guide-ring 21, concentric therewith and fast on the upper surface of the drip-plate 12. This table may be made in a variety of ways, the only essential feature of its construction being that it shall be open or perforated to permit the drippings from the cakes carried thereby to fall therethrough upon the underlying drip-plate 12. As herein shown, this perforated table is composed of a central ring 22 of a diameter just sufficient to enable the same to fit over the top of the plate 17, an outer marginal ring 23, a series of connecting arms or spokes 24, and a series of smaller concentric rings 25, overlying the spokes 24 and disposed at uniform intervals apart. In order to insure the more perfect seating of the perforated table when thus constructed upon its supporting-spider, the hub of the latter may, as shown in Fig. 3, be provided with radially-disposed flat metal strips 26, the outer overhanging ends of which are downwardly bent and curved to form seats for the inner ring 22. These latter devices also serve, by engagement with the arms 24, to removably connect the rotary table and its underlying spider for simultaneous rotation about the pin 14.

The apparatus is employed to facilitate the icing or coating of the cakes and the saving of the drip therefrom in substantially the following manner: The parts being assembled in the manner shown in the drawings, the cakes are dipped in the icing or coating 5 and then either with or without stroking off are set in close order upon that portion or side of the rotary perforated table which is nearest the operator. As the work progresses the operator intermittently turns the table and its supporting-spider by hand in order to continuously present unoccupied space on the table for the deposit thereon of the newly iced or coated goods. This of course causes the goods already deposited to be gradually carried around upon the table, during which travel that portion of the icing or coating which fails to adhere to the cakes runs off, and falling between the concentric supporting-rings of the table drops onto the stationary drip-plate 12 and gradually runs down the latter back into the vat over the lowermost cut-out margin of the drip-plate. In practice the table is made of such capacity relatively to the operator's speed in coating and depositing the goods thereon as that by the time the goods placed thereon have been carried around to the opposite side of the icing-vat they are sufficiently dry to have ceased dripping and may then be removed for still further drying and hardening without any further drip and waste of the coating material.

The simple construction of the device enables the parts to be readily separated and withdrawn for cleaning purposes. The rotary table, as well as its spider-support, may be removed by simply lifting them off their journal-bearing, after which they may be separately cleaned and readily replaced in operative position. The removal of the table and its immediate support likewise leaves the drip-plate 12 completely exposed for convenient washing and cleansing as often as may be found necessary or desirable.

The device as herein shown is designed to be operated manually by the operator, the table being turned at a rate of speed proportional to the speed with which the operator is able to dip and deposit the goods thereon; but it will be obvious that, if desired, the table might be either continuously or intermittently turned by a clockwork or power mechanism conveniently geared thereto in any suitable manner.

From the foregoing it will be seen that my invention provides a simple and easily-operated apparatus whereby the drippings from iced or coated cakes can be entirely saved and automatically returned to the icing-vat, thus saving considerable time on the part of the operator and through the prevention of waste considerably reducing the expense of producing the goods.

It will be evident that the mechanical principle of my invention and the advantageous results secured thereby might be embodied and attained through the use of other and mechanically-equivalent devices coöperating in substantially the same way. I do not, therefore, limit my invention to the specific form and details of the apparatus herein shown and described, except to the extent that the same may be made the subject of specific claims.

I claim—

1. The combination, with an icing-vat, of a perforated table rotatably supported thereabove, and a drip-plate underlying said rotary table and serving to return the drippings to the vat, substantially as described.

2. The combination, with an icing-vat, of a perforated table rotatably supported thereabove, and an inclined drip-plate underlying said rotary table and overhanging said vat and serving to return the drippings to the vat by gravity, substantially as described.

3. The combination, with an icing-vat, of a perforated table rotatably supported thereabove, and an inclined drip-pan underlying and surrounding said rotary table, said drip-pan being apertured in that portion thereof which overhangs the vat, whereby the drippings from the table to the drip-pan are automatically returned to the vat by gravity, substantially as described.

4. The combination, with an icing-vat, of a perforated table rotatably supported thereabove, and an inclined drip-pan overhanging said vat wherein said rotary table is contained, said drip-pan having its annular wall cut out in that portion thereof which overhangs the vat to permit the gravity flow of the drippings therefrom to the vat, substantially as described.

5. The combination, with an icing-vat, of a

perforated table rotatably supported thereabove, and an inclined drip-pan overhanging said vat wherein said rotary table is contained, said drip-pan having its annular wall and base cut away throughout that portion thereof which overhangs the vat to permit the gravity flow of the drippings therefrom to the vat, substantially as described.

6. The combination, with an icing-vat, of a stationary inclined drip-pan overhanging said vat and provided with a discharge-opening in its overhanging portion, and a similarly-inclined perforated table rotatably mounted in said drip-pan, substantially as described.

7. The combination, with an icing-vat, of a pedestal at one end thereof, a stationary inclined drip-pan supported on said pedestal and overhanging said vat, said drip-pan being provided with a discharge-opening in said overhanging portion, a fixed stud centrally mounted on the upper surface of the base of said drip-pan and normal thereto, a spider rotatably mounted on said pan, and an annular wire-frame drip-table superposed on the arms of said spider and rotatable therewith, substantially as described.

FREDERICK L. WETZEL.

Witnesses:
W. B. HOUSTON,
EDWARD FITSGERALD.