

No. 734,536.

PATENTED JULY 28, 1903.

J. FRIEND.  
APPARATUS FOR MAKING CONFECTIONS.

APPLICATION FILED NOV. 14, 1902.

NO MODEL.

Fig. 1

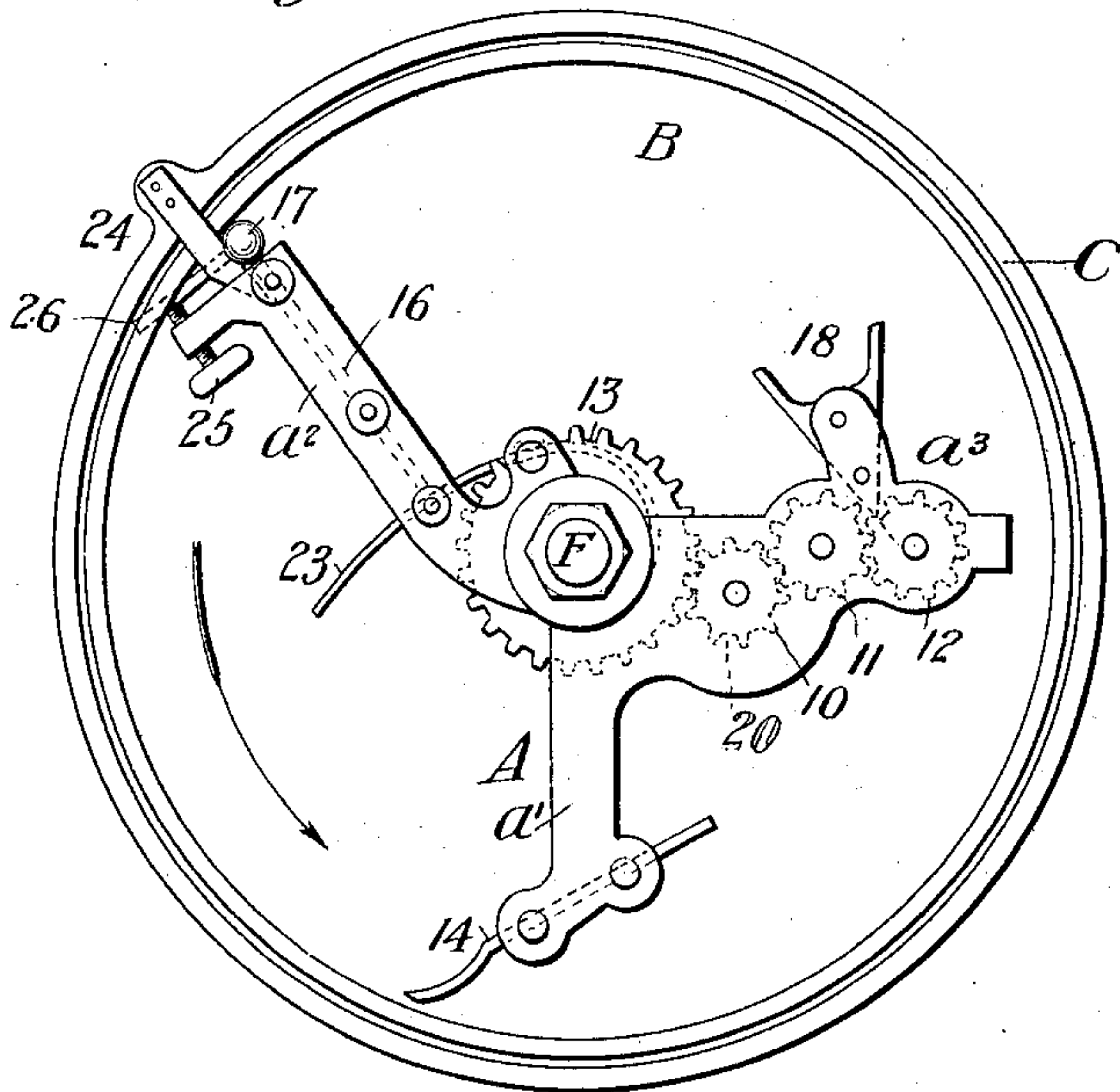


Fig. 2.

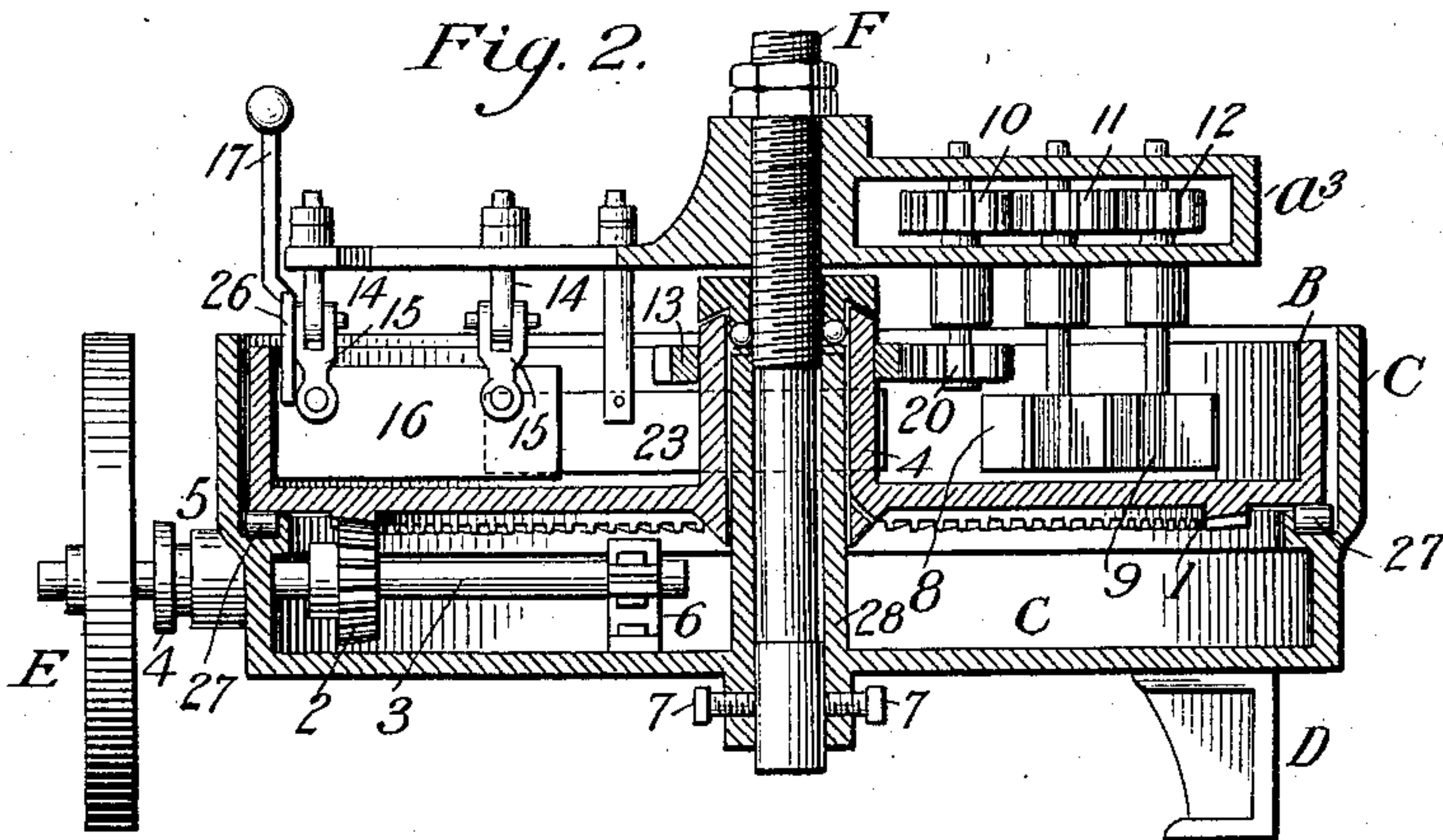


Fig. 3.

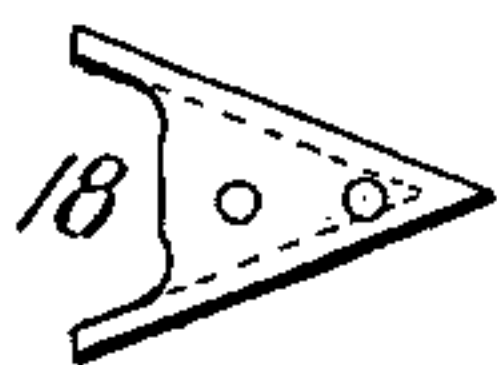
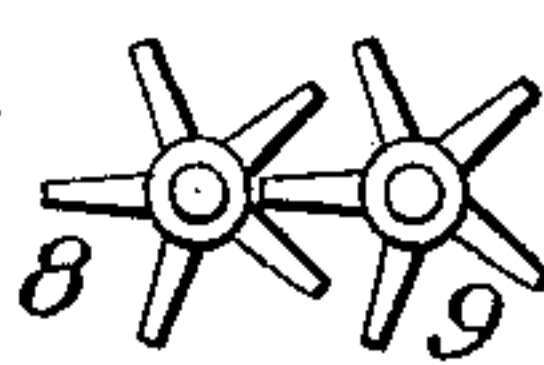


Fig. 4.



Witnesses:  
Wm. Kuhn  
PA Nicholas

Inventor:  
Joseph Friend  
By B. Pickering Atty



## UNITED STATES PATENT OFFICE.

JOSEPH FRIEND, OF DAYTON, OHIO.

## APPARATUS FOR MAKING CONFECTIONS.

SPECIFICATION forming part of Letters Patent No. 734,536, dated July 28, 1903.

Application filed November 14, 1902. Serial No. 131,363. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH FRIEND, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Machines Used in the Manufacture of Confections; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and numerals of reference marked thereon, which form a part of this specification.

My invention relates to improvements in machines used in the preparation of confections by agitating the stock and rapidly cooling the same, thereby arresting crystallization in the production of cream-candies, bonbons, fondants, &c., resulting in a smooth paste-like preparation most agreeable to the taste.

The object is accomplished by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the machine. Fig. 2 is a transverse vertical view with the parts chiefly shown in central section. Fig. 3 is a top view of the distributor. Fig. 4 is a top view of the crushing-wheels.

Like letters and numerals designate like parts in the several views.

The external vessel or case C is mounted on suitable legs, one of which is shown at D, Fig. 2. On its external surface is the boss 5, which forms the outer bearing for the shaft 3. The inner end of the same is supported in the box 6. The gland 4 is screwed into this boss to inclose packing to prevent leakage from the case. On the outer end of said shaft is the pulley E, over which a belt is run from the main shaft to drive the machine. In a ledge around the sides of the case is formed a continuous groove, into which are placed the cylindrical rollers 27 and within which they have their bearings. The series of rollers extend entirely around and form the chief support to the circular pan B, resting thereon. The case has a central hollow post 28, extending to about the height of the top of said pan, and there is a corresponding ex-

tension beneath the bottom to secure the post F, which is secured by the screws 7 7. The pan B is provided with a series of cogs 1 1, cast as an integral part thereof, and these cogs are engaged by the pinion 2 and in operation revolve said pan. The central sleeve 4 of this pan embraces the hollow post of the case. The cap 20 is screwed on the post F, and its under surface bears on balls 22, resting on the top of the hollow post to relieve the friction and serves to hold the pan from raising out of gear. These balls, with the cylindrical rollers at the bottom, furnish the entire support for the pan. The bearing-cap may be firmly secured to the central post F by either a lock-nut or set-screws, neither of which is shown in the drawings. To the sleeve 4 is secured the cog-wheel 13. This engages wheel 20. On the shaft of this wheel is secured the wheel 10. This engages 11, and this 12, held in the arm  $a^3$  of the agitator-frame A. On the lower ends of the shafts of the latter two wheels are attached—the crusher-wheels 8 and 9. These serve to crush the lumps in the sugar. The distributor 18 serves to deflect the stock after the material has passed the crushers.

In the arm  $a'$  is held the agitator-plate 14, used to throw the stock toward the center of the pan, and on arm  $a^2$  is held the agitator-plate 23, which turns the stock outwardly, and by these parts the stock is thoroughly stirred and made of a uniform consistency. The plate 16 is pivotally suspended from arm  $a^2$  on the rods 14 14, held by nuts fixedly in said arm. To the straps 15 15 are bolted said plate, and to the outer end of one of these is attached the arm 17, by which the same is moved. To this arm is the projection 26, used to hold said plate in a horizontal position, in which position it is held during the stirring process, and is only held in a vertical position when discharging the stock from the pan. The pin 25 engages an orifice in the extension 26 when the plate is elevated. Attached to the outer rim of the case is an ear to which is rigidly attached the arresting-arm 24, which engages the side of the outer strap, and thereby maintains the plate in a vertical position when the same is let down. This raising and lowering of the discharging-plate is a simple function and may be effected by an equiva-



lent device. The agitator-frame A is rigidly held in its relation to the case by the threaded part and the binding-nuts on the top of the post, said post being secured at the bottom, as before described. When the power is applied, the pan is rotated in the direction indicated by the arrow at Fig. 1.

The operation is thus: Sugar with water is boiled in a suitable vessel until the proper consistency is attained. The stock is then allowed to flow into the agitating-pan, where the material combined with flavoring extracts is thoroughly mixed by the rotation of the pan and then is rapidly cooled by the jets of water and discharged into molds or otherwise, as desired.

Having described my invention, what I claim is—

1. In a machine for stirring candy as herein described, the combination of the case having a central support the pan, the cap with roller-bearing to prevent the raising of said pan; said case provided with a grooved bearing, cylindrical rollers held therein, the shaft and pulley supported in bearings of the case, the pinion on said shaft, the pan provided with cogs to engage said pinion and bearing on said rollers, substantially as set forth.

2. In a machine for stirring candy stock as herein described, the combination of the case, the pan mounted therein on cylindrical rollers,

the post held rigidly in said case, the adjustable cap with balls for a central support to prevent the raising of said pan and the internal gear to rotate the same, substantially as set forth.

3. In a machine for stirring candy stock as herein described, the combination of the case, the shaft mounted therein, the pan supported on rollers held in the groove of said case, the central post, and the agitator-frame fixed to said post with suitable blades attached and arranged near the bottom of said pan, substantially as set forth.

4. In a machine for stirring candy stock as herein described, the combination of the enclosing case, the fixed post, the agitating-frame, the plates or blades 14 23 and distributor 18 held on said frame, the cog-wheel held fixedly to the column of said case, the series of cog-wheels to give rotation, the crusher-wheels moved by said cog-wheels supported in said frame and the pan rotated in said case, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH FRIEND.

Witnesses:

B. PICKERING,  
J. C. KURTZ.