

(No Model.)

C. STEFFEN.
CENTRIFUGAL MACHINE.

No. 410,942.

Patented Sept. 10, 1889.

Fig. 1.

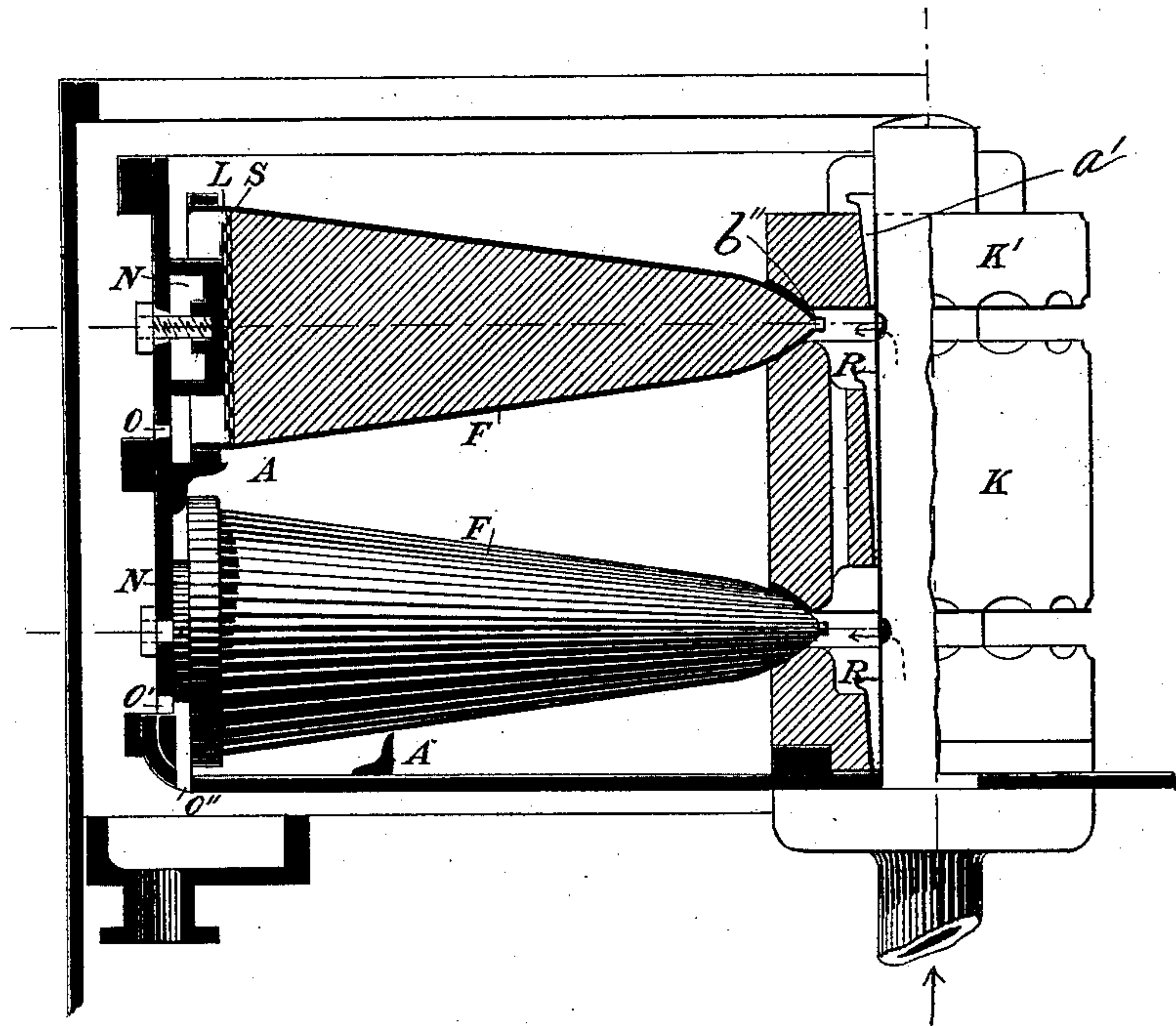
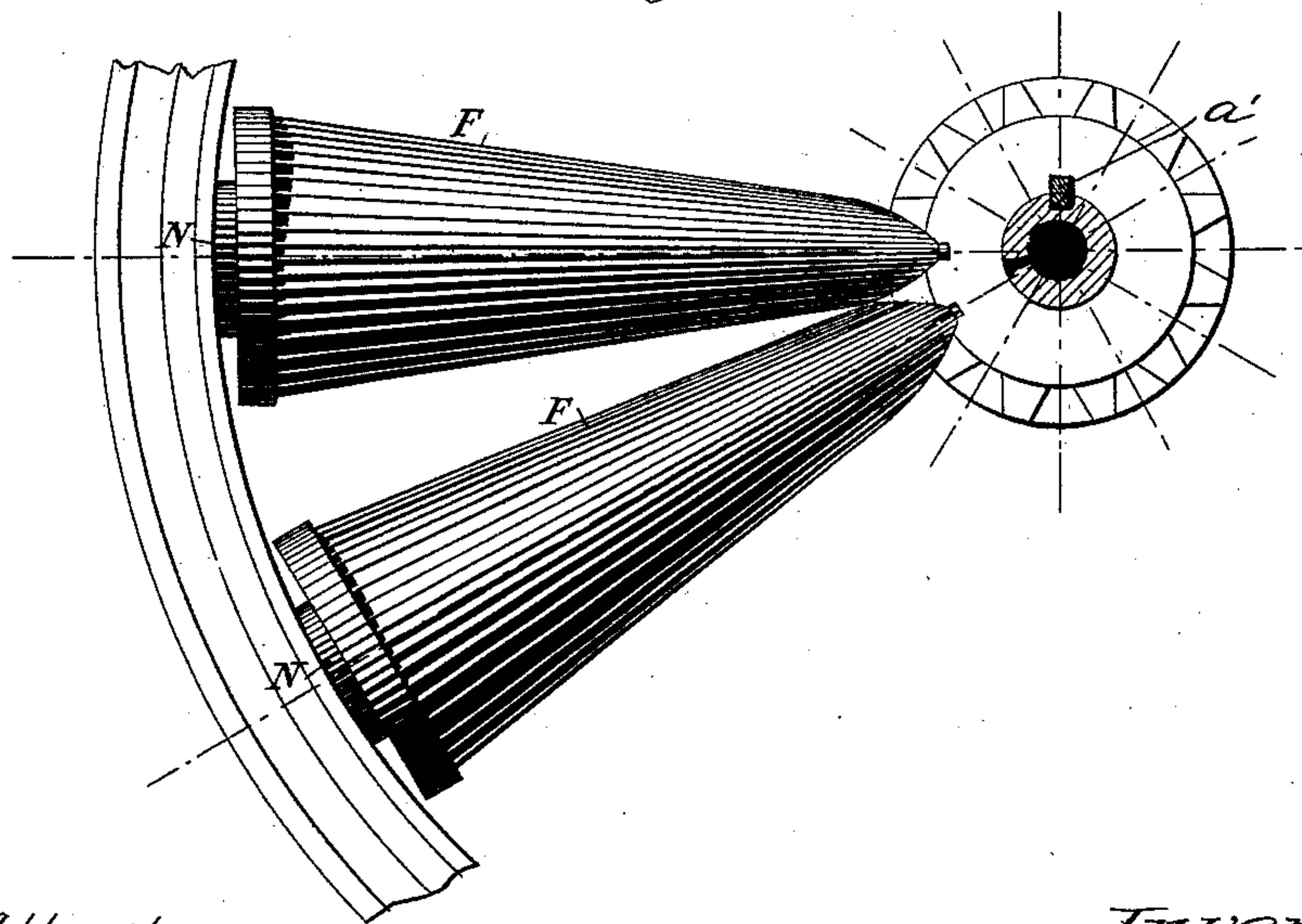


Fig. 2.



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CARL STEFFEN, OF VIENNA, AUSTRIA-HUNGARY.

CENTRIFUGAL MACHINE.

SPECIFICATION forming part of Letters Patent No. 410,942, dated September 10, 1889.

Application filed November 22, 1887. Serial No. 255,909. (No model.)

To all whom it may concern:

Be it known that I, CARL STEFFEN, of the city of Vienna, in the Austro-Hungarian Empire, have invented a certain new and useful
5 Centrifugal Machine for Treating Sugar in Loaf-Forms, of which I declare the following to be a specification.

Figure 1 represents an elevation of a portion of my improved apparatus with one of
10 the cones in section, and Fig. 2 is a section through the central shaft with two of the cones in elevation.

The loaf-forms F are arranged within the drum or cylinder, each with its apex radially
15 directed toward the center of the centrifugal machine, so that the bottoms of the forms or of the sugar-loaves themselves rest against the wall of the drum of the centrifugal machine. In the first case the loaf-form must
20 be either entirely filled or a circular sieve made to enter the form until it comes in contact with the bottom of the loaf. These sieves can either be attached to the wall of the drum or loose circular sieves and thick perforated
25 sheet-metal disks L S can be loosely laid on the bottom of the loaf in each form. In this case the drum is provided with ribbed studs or projecting parts N, in a radial line to the loaf-tips, said parts N being of such height
30 that they will come in contact with the loaf; but as the parts N are of smaller circumference than the outer periphery of the forms F they do not come in contact therewith. The round sieve and the perforated sheet-metal
35 disk, the latter serving to support the sieve, are laid in the loaf-form between the loaf and the stud N. Stud N must be of such size that it is able to carry the loaf. The perforated sheet-metal disk L is quite loose, while the
40 sieve S fits tightly into the loaf-form. The loaves are arranged in one or more rows, one above the other or alternately. Suitable bearings A are attached to the wall and bottom of the drum to serve as supports for the form
45 before the centrifugal machine is set in operation. After the machine has been set in operation each loaf will lay itself against its

stud N and be held by the same, while the form which has no support in radial direction presses itself firmly onto the loaf, so that all
50 loosening of the same or throwing out of the loaf is avoided. Fig. 1 shows the loaf under this compression from the form.

o o' o'' are openings in the drum for leading off the liquor driven out of the loaf by the
55 centrifugal action.

K K' are loose rings which form the bearings for the tips or apexes of the forms, and are held by means of wedges, as shown at a'.

The spaces R can be employed for admitting heated air to dry the loaves during the operation of the machine, the space between the forms and the loose rings K in this case being well packed and the shaft provided with suitable stuffing-boxes and a longitudinal
65 bore.

The forms F, as shown, have openings b' in their apexes, through which the heated air may act upon the sugar to dry the same. The heated air may be directed to the space R
70 through suitable inlets made through the shaft.

I claim—

1. In combination, the shaft, the drum, the radial forms, and the rings K K' on said shaft,
75 having seats for the forms and arranged upon each side of the same, with means for securing said rings to the shaft, substantially as described.

2. In combination, the shaft, the drum, the
80 radially-arranged forms, having open inner ends, the rings, having seats for said forms, said rings being upon each side of the forms and at a slight distance apart, and the hollow shaft having outlets opening into the spaces
85 between the rings, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CARL STEFFEN.

Witnesses:

EDMUND JUSSEN,
OTTO SCHEFFER.