

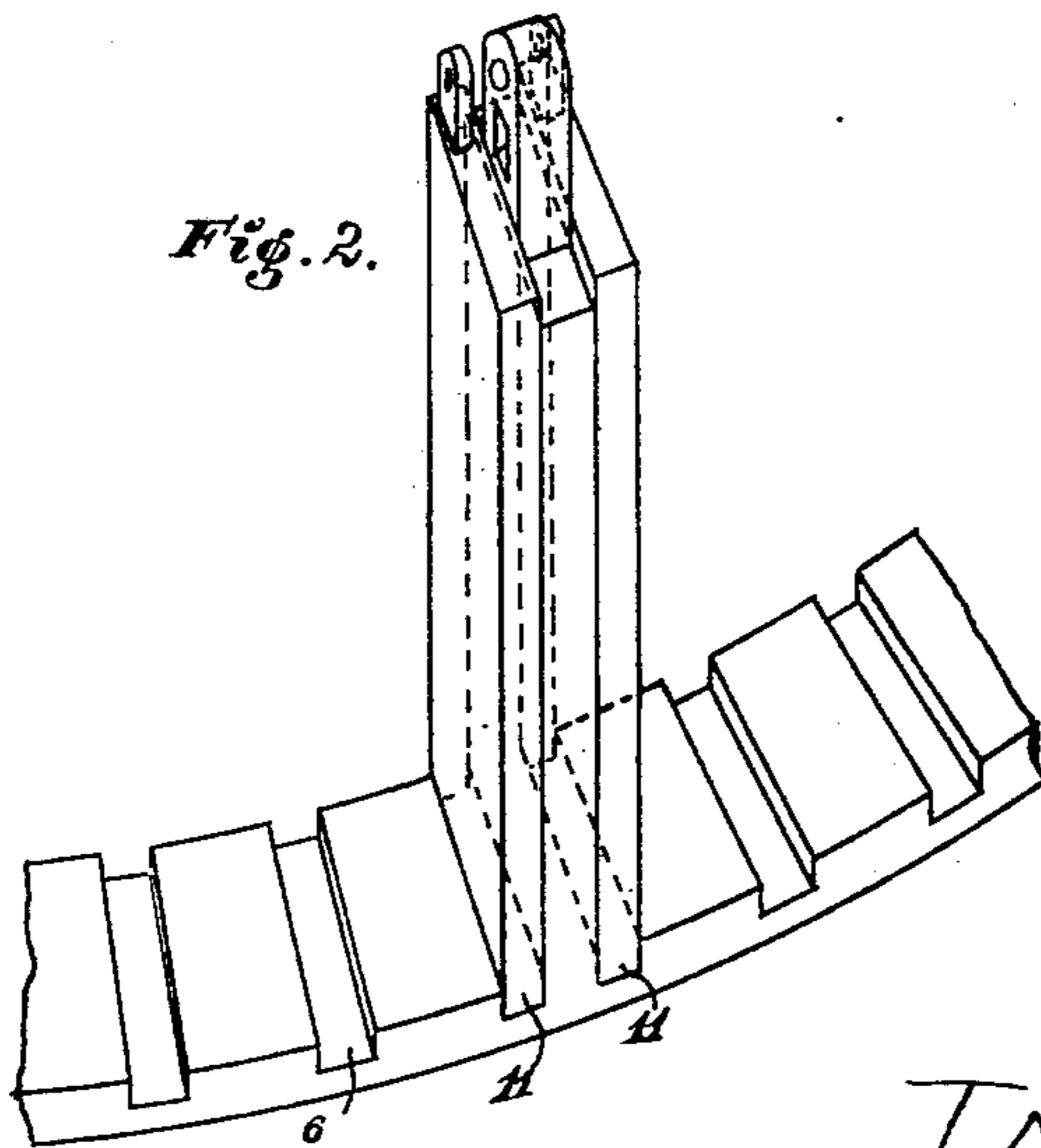
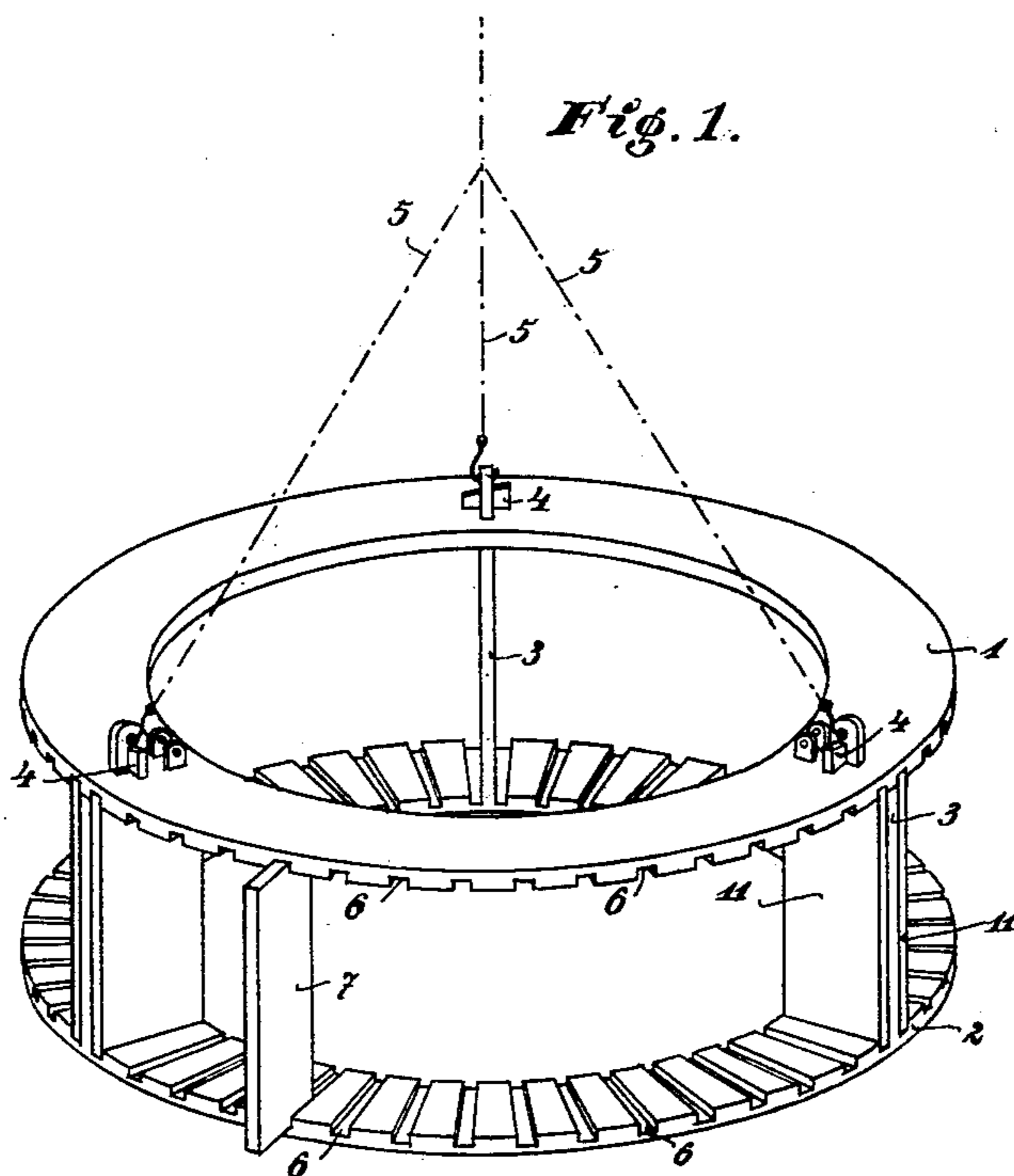
(No Model.)

2 Sheets—Sheet 1.

J. SCHROEDER.
CENTRIFUGAL MACHINE.

No. 593,423.

Patented Nov. 9, 1897.



Witnesses
H. L. Beil
O. Munk

Inventor
Julius Schroeder
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Attorneys

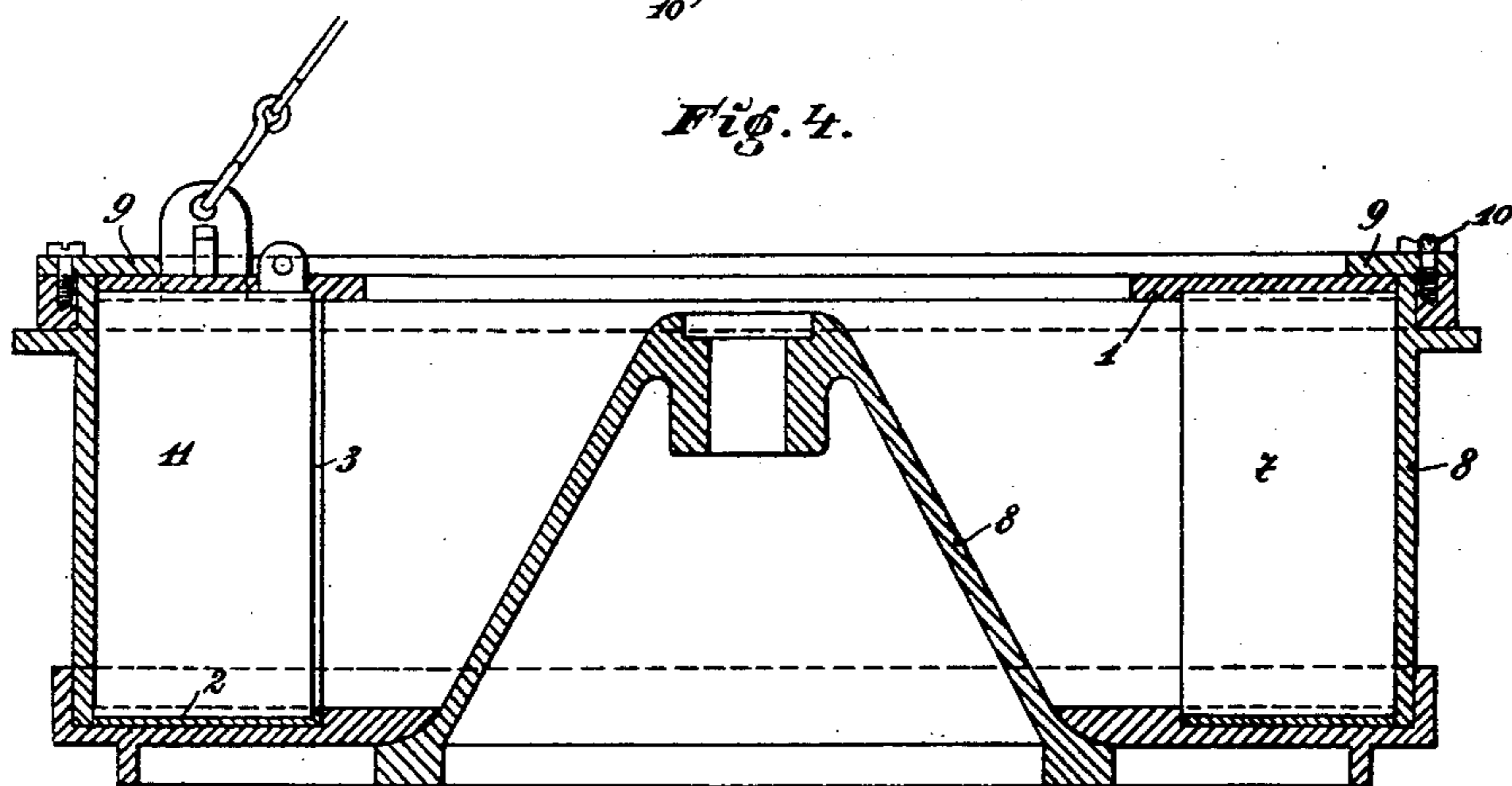
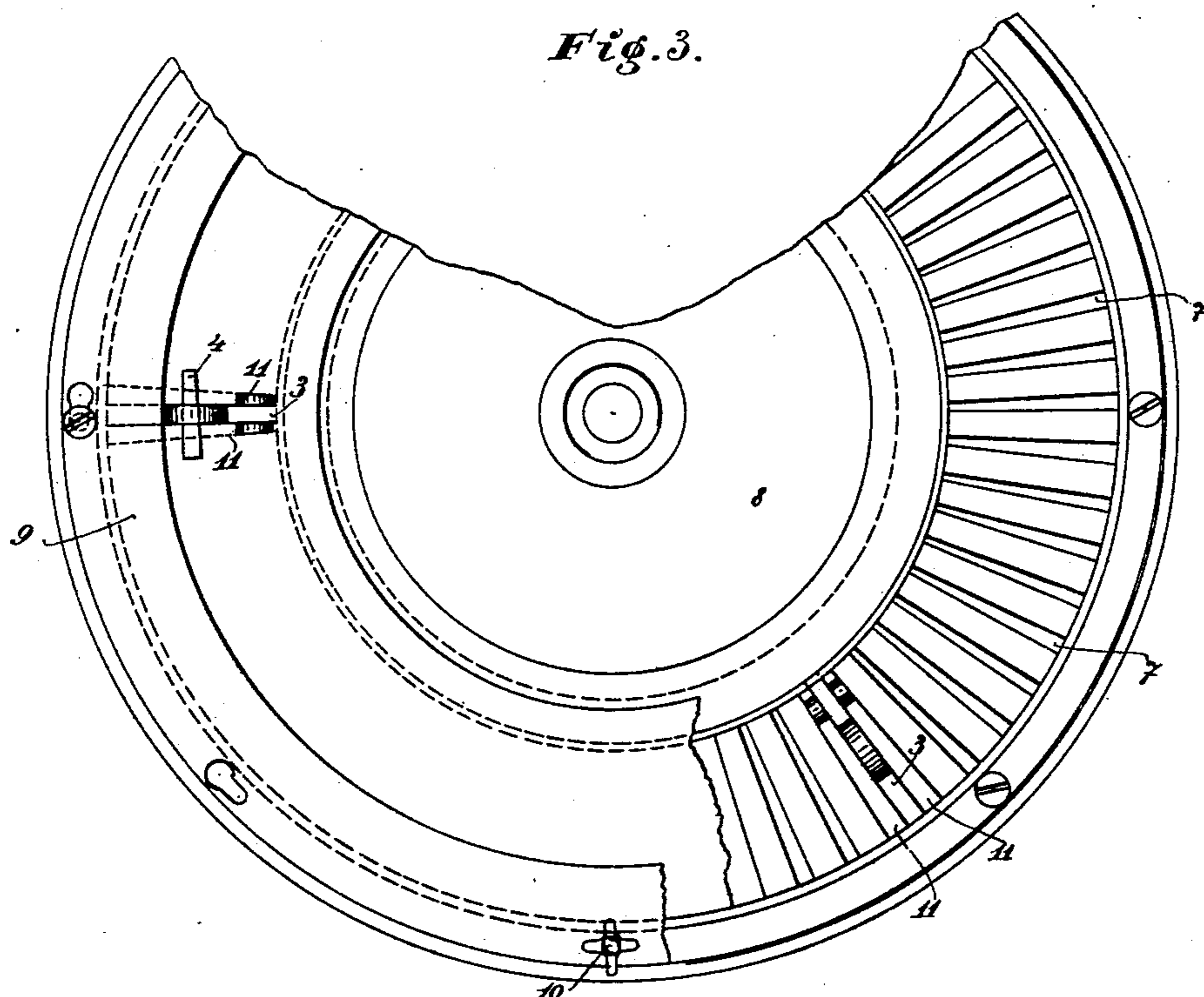
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UNITED STATES PATENT OFFICE.

JULIUS SCHROEDER, OF GÖDING, AUSTRIA-HUNGARY.

CENTRIFUGAL MACHINE.

SPECIFICATION forming part of Letters Patent No. 593,423, dated November 9, 1897.

Application filed January 23, 1897. Serial No. 620,428. (No model.)

To all whom it may concern:

Be it known that I, JULIUS SCHROEDER, director of the Göding Zuckerfabriken, a subject of the Emperor of Austria, residing at Göding, in the Province of Moravia, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Machines for Making Block-Sugar; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the machinery for making block-sugar. Its object is to furnish a transportable basket for the centrifugal machine—that is to say, a basket which may be put in and taken out of the machine at will.

The basket consists, as shown in Figure 1 of the accompanying drawings, of two rings, an upper one and a lower one. The lower ring 2 bears posts or standards 3, on which the upper ring 1 rests. The standards must be provided near their upper end with two holes, a square one and a round one, the round hole being above the square one. The latter ones receive the keys which hold the upper ring, and the round holes are for the hooks of the chain of a differential pulley, serving to set the basket into the running drum or take it out of the same. Both rings have corresponding grooves for taking in the partitions 7, which form the meshes of the basket. (Compare Figs. 1 and 2.) These partitions have the form of a plate, the thinner edge being inside of the basket, so that the meshes have parallel walls. If, for instance, sugar-plates are to be produced, as many partitions 7 are set in in the basket, Fig. 1, as its rings have grooves, the space left between every two of these partitions forming the room for the sugar-plates to be formed.

Fig. 3 is a plan view of the centrifugal drum with the basket set in in a state as just described. Fig. 4 is a vertical section of the centrifugal drum with the basket put in.

To hold the basket in the drum 8, a ring 9

is placed on the top of the centrifugal drum and fastened there by means of screws 10.

Now it is obvious that with the basket described any desired thickness of the sugar-plates may be obtained, according to the number of partitions used and how they are disposed to each other. If plates for cube-sugar are to be produced, all the partitions 7 are placed in the basket. If block-sugar is desired, three or five partitions are left out and the desired result will be obtained.

In order to make it easy to lift the basket out of the centrifugal drum and also to take out the sugar-plates of the basket, it is recommended to use one or more additional plates 11, as shown in Figs. 1 and 2, which plates are withdrawn when the centrifugal work is over.

The working with this basket is as follows: First, the basket is provided with as many partitions as desired. Thereafter it is fastened to a differential pulley, which is combined with a movable scaffold lifted by means of the pulley placed above the centrifugal machine and then lowered into the empty centrifugal drum, where it is fastened, as described above, the hooks of the pulley-chain having been taken off and the scaffold with the pulley rolled away. When this is done, the centrifugal machine is caused to work, and the masse-cuite is brought into the drum in the usual way until all the compartments of the basket are filled with the masse-cuite. The syrup is first cleared off by the work of the centrifugal machine and the sugar cleaned by steam in the usual way, after which the centrifugal drum is caused to run for a while longer in order to dry the sugar. Then the work of the machine is stopped, the ring 9 taken off from the drum, and the forelock-keys 4 are also taken out, so that the ring 1 of the basket can be taken away. For the sake of loosening the partitions 7 and the sugar-plates the additional plates 11 are withdrawn. Now the partitions and sugar-plates are standing loose on the ring 2 of the basket, and the latter can easily be taken out of the drum by means of the aforesaid pulley. The basket is then removed to the place of discharge, and after the partitions are taken out the sugar is removed from the basket. The

parts of the basket are then reassembled and carried to a reservoir with hot water, where the basket is subjected to a bath in order to clean it from the sugar adherent to the same.

5 The basket will be dry after a short time. When it is dry, it is ready for use again. Two such baskets should belong to each centrifugal machine, so that one of them is always working while the other one is discharging.

10 The advantages to be derived from this new centrifugal basket are the following:

First. The working power of a centrifugal machine for producing sugar-plates is increased considerably (about sixty per cent.)

15 as compared to all other known centrifugal systems.

Second. When the basket is taken out of the drum, the air has free access to the outer periphery of the sugar, causing the same to become hard after a short time.

20 Third. As the basket can be subjected to a bath in a reservoir, much time is saved and also fuel, for the cleaning of other drums with their manifold arrangements requires not only much time, but also great quantities of water, which must be evaporated in drying the drum again.

I claim—

1. In combination, the drum, the upper and lower grooved rings, the partitions between the rings, the standards extending from the lower rings up through the upper rings and the keys for locking the upper ring to the standards, substantially as described. 30

2. In combination, the drum, the upper and lower rings, the standards extending from the lower ring up through the upper ring, means for locking the upper ring in place, the upper ends of said standards having seats to receive the suspending means, substantially as described. 35 40

3. In combination the drum, the upper and lower rings having grooves, the partitions fitting in said grooves and the removable plates extending between the rings to permit the sugar and partitions to be removed, substantially as described. 45

In testimony whereof I affix my signature in presence of two witnesses.

JULIUS SCHROEDER.

Witnesses:

HARRY BELMONT,
KARL ROCH.