G. M. ANDERSSON.

CENTRIFUGAL SEPARATOR DEVICE.

APPLICATION FILED MAY 23, 1919.

1,365,643. **Patented Jan. 18, 1921.**

Fig. 1.

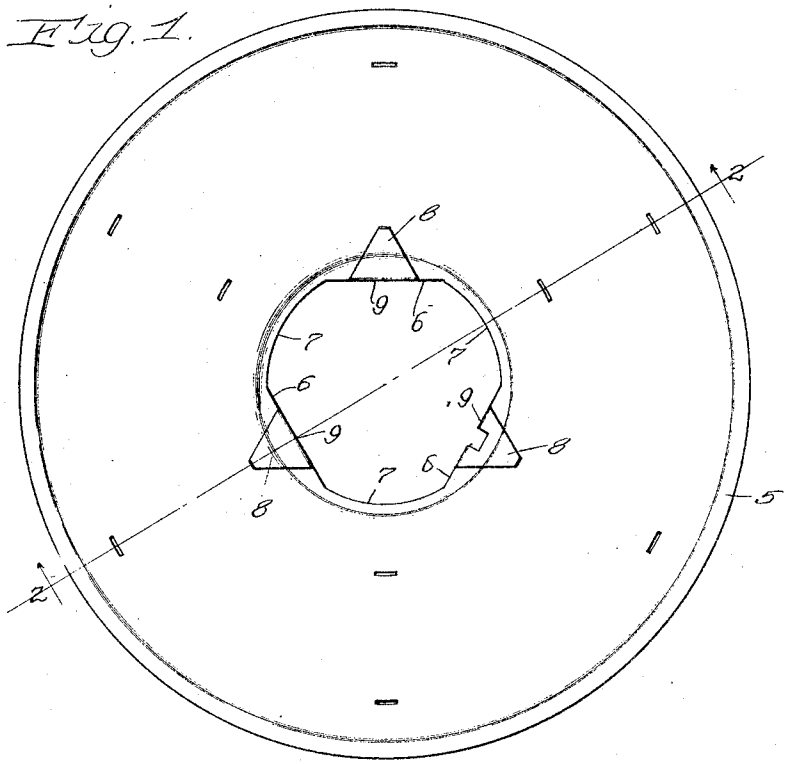
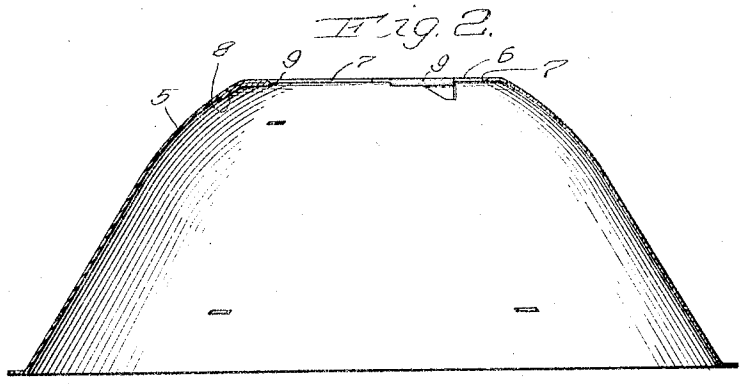


Fig. 2.



Witness:
C. L. Jarrington

Inventor,
Gustaf M. Andersson
By Brown & Dixon
Attys.

UNITED STATES PATENT OFFICE.

GUSTAF M. ANDERSSON, OF WATERLOO, IOWA, ASSIGNOR TO ASSOCIATED MANUFACTURERS COMPANY, OF WATERLOO, IOWA, A CORPORATION OF IOWA.

CENTRIFUGAL-SEPARATOR DISK.

1,365,643. Specification of Letters Patent. Patented Jan. 18, 1921.

Application filed May 23, 1919. Serial No. 299,272.

To all whom it may concern:

Be it known that I, GUSTAF M. ANDERSSON, a subject of the King of Sweden, residing at Waterloo, in the county of Blackhawk and State of Iowa, have invented certain new and useful Improvements in Centrifugal-Separator Disks, of which the following is a specification.

My invention relates to centrifugal separator disks and has for its object the provision of means in such disks for producing maximum bearing surfaces and otherwise giving it maximum life.

Other objects will appear hereinafter.

An embodiment of my invention is shown in the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a bottom view of a separator disk embodying my invention; and

Fig. 2 is a section of the same taken on line 2—2 of Fig. 1.

In separator disks now in use it is found that the points where the disks engage the spindle which revolves them wears away rapidly, thereby making the disks of comparatively short life. My invention is designed to provide a thickened portion at these bearing surfaces so as to stiffen the construction and increase the life of the disks.

In the drawing I have indicated a disk 5 which may be any of the disks now in use for cream or other centrifugal separators. The shape and size of the disk are immaterial so long as they answer the purpose of the designer. In the form of disk shown there are three bearing surfaces 6 with parts 7 cut away between such bearing surfaces. In my construction I preferably form parts 8 integrally with the material of the disk and bend these portions back as at 9 for producing thicker bearing portions. By forming the portions 8 integrally with the disk and turning them back as mentioned a round edge is produced at 9 so that there are no cutting edges left on this bearing surface 6. In constructions where the bearing surfaces are the cut edge of the material, these edges have a tendency to scrape off metal from the spindle and also the apparatus used for cleaning the disks, both of which are not shown. Also, the square edges wear off quickly. As soon as the bearing surfaces 6 wear away in disks of this character and there is play between the disk and spindle, the disk gets out of balance and owing to the high rate of speed at which the disk is revolved tends to interfere with the operation of the machine and throw it out of balance generally. Therefore by providing the parts 8 and 9 above referred to I have produced a means for greatly increasing the life of the disks over those now in use.

I preferably solder or otherwise secure the parts 8 against adjacent parts of the disk 5 so as to make the construction more firm and to prevent forming a place for dirt or foreign material to accumulate. It will also be apparent that the parts 8 may be formed of separate pieces of material and secured to the disk 5 by solder, or any other desirable means. In such case I prefer to round the bearing edge 9, but this is not absolutely essential.

I claim:—

1. A centrifugal separator disk comprising a disk proper having bearing surfaces thereon, and portions formed integrally with the disk at said bearing surfaces bent back and laying tightly against the disk adjacent said bearing surfaces.

2. A centrifugal separator disk comprising a disk proper having a bearing surface, and a portion formed integrally with the disk proper at said bearing surface and turned back tightly against the disk with a rounded edge where said part is turned back upon the disk.

3. A centrifugal separator disk comprising a disk proper having bearing surfaces thereon, cut-away portions adjacent said bearing surfaces and portions formed integrally with the disk at said bearing surfaces and folded back tightly against the disk, and solder securing said folded back portions against adjacent parts of said disk.

In testimony whereof I have signed my name to this specification on this 19th day of May, A. D. 1919.

GUSTAF M. ANDERSSON.