

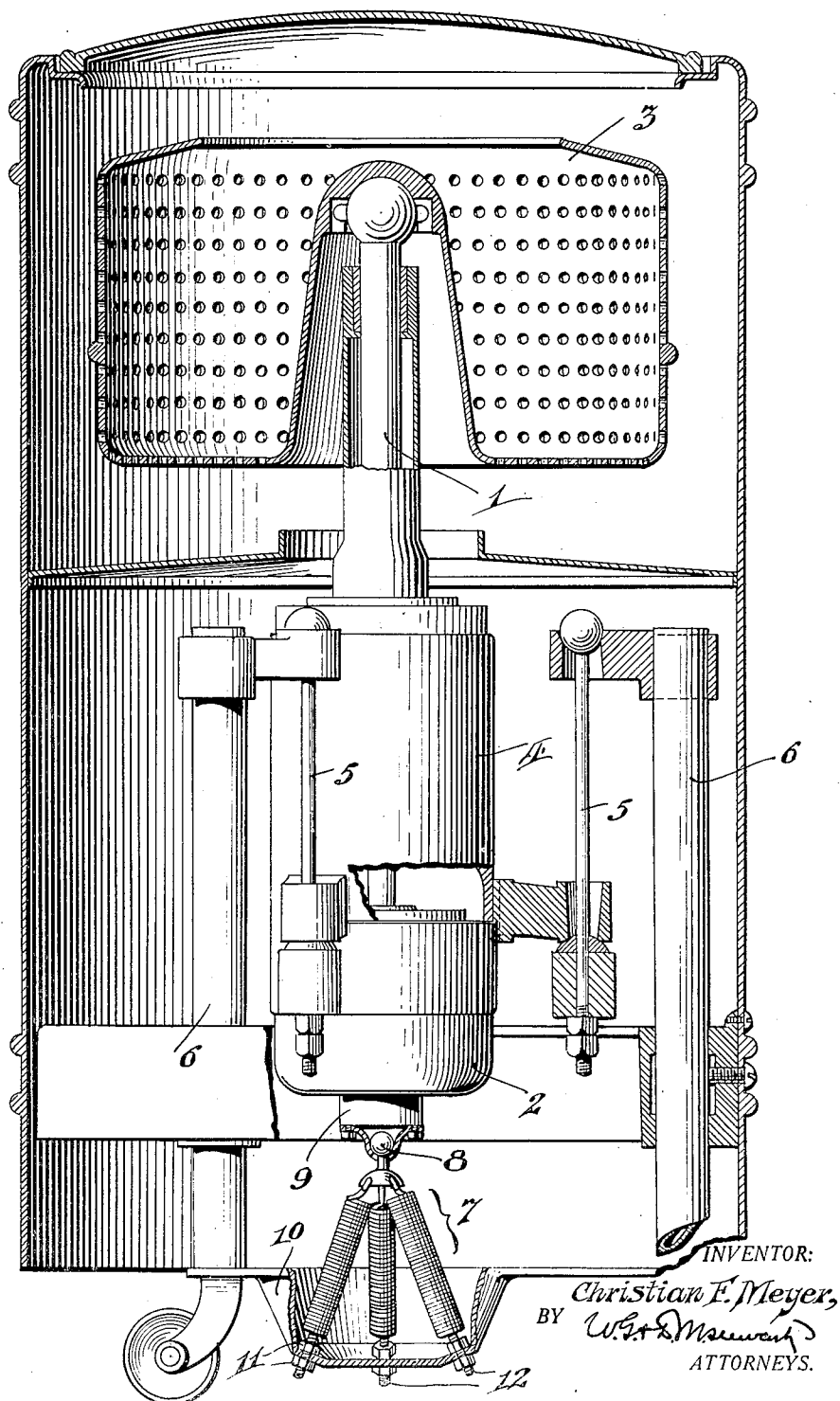
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CENTRIFUGAL MACHINE

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UNITED STATES PATENT OFFICE

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CENTRIFUGAL MACHINE

Application filed December 21, 1929. Serial No. 415,726.

This invention relates to centrifugal machines, and more particularly to an improved mounting or support for the gyrating unit of such machines.

5 The primary object of my invention is to provide, in combination with mounting or supporting means for the gyrating unit of a centrifugal machine permitting bodily movements laterally of its static axis to positions
10 in substantial parallelism therewith, of separate means for constantly urging the unit towards alignment with its static axis when deviating therefrom during operation.

The invention comprises mounting means
15 incorporating the novel elements, features of construction and arrangement of parts in operative relationship, as herein exemplified in connection with a centrifugal drying machine of the type disclosed in my copending
20 application, Serial No. 72,173, filed November 30, 1925.

Other objects and attendant advantages of the invention will become more readily apparent from the following detailed description of one embodiment thereof, reference being
25 had to the accompanying drawing in which—

The figure is a vertical view of a centrifugal drying machine, partly in section and
30 partly in full, and having my invention applied thereto.

The present invention relates generally to the subject matter covered in my copending patent application mentioned, and pertains
35 particularly to improved mounting means for the gyrating unit of a centrifugal machine such as disclosed therein.

Referring to the drawing, the gyrating unit, in the present instance, generally comprises a vertical shaft 1, which is driven by a motor 2 connected to its lower end, and a container 3 rockably mounted on its upper end. A housing 4 encloses the shaft 1 and
45 carries auxiliary operating parts.

As more fully explained in my copending application, the gyrating unit, during operation, tends to move bodily to constantly varying lateral positions in substantial parallelism with its static or normal axis, such move-
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ments being functional in maintaining desired stable equilibrium of the machine.

In order to facilitate such lateral movements along a substantially horizontal plane, I provide a series of suspension rods 5 which
55 are normally vertically positioned and connected by universal joints to machine frame members 6, and to the housing 4, as clearly shown.

The gyrating unit is normally held centrally of the suspension rods by an adjustable spring arrangement 7 comprising a circular series of coiled springs having their converging upper ends secured to a universal joint
60 8 at the bottom center of the motor housing 9, and their uniformly diverging lower ends secured to a frame member 10, which springs prevent excessive lateral play, and constantly urge the unit towards alignment with its static axis during operation.
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The proper restraining action on the unit, influential in maintaining machine stabilization at various operating speeds, may be obtained by nice adjustments afforded by nuts
70 11 on spring connected bolts 12.

Of course, the mounting means for gyrating units herein shown and described may be modified in various ways without departing from the invention set forth, it is therefore to be understood that the same is not limited
75 to the precise construction and arrangement of parts shown, but that such changes and alterations may be made as fairly come within the scope of the appended claim.

I claim:

85 In combination with a centrifugal machine frame and a rotary unit comprising a vertical container-supporting shaft and a motor-housing on said shaft; frame-supported mounting means for said rotary unit arranged
90 to permit lateral bodily movement thereof and means tending to maintain said rotary unit in normal vertical position comprising a circular series of coiled springs having converging upper ends centrally connected by a
95 universal joint to the base portion of said unit and uniformly diverging lower ends connected to said frame.

In testimony whereof I affix my signature.

CHRISTIAN F. MEYER 100