No. 760,033. PATENTED MAY 17, 1904.

M. F. STADTMULLER.
JOURNAL BEARING.
APPLICATION FILED JAN. 14, 1904.

NO MODEL.

Fig. 1.

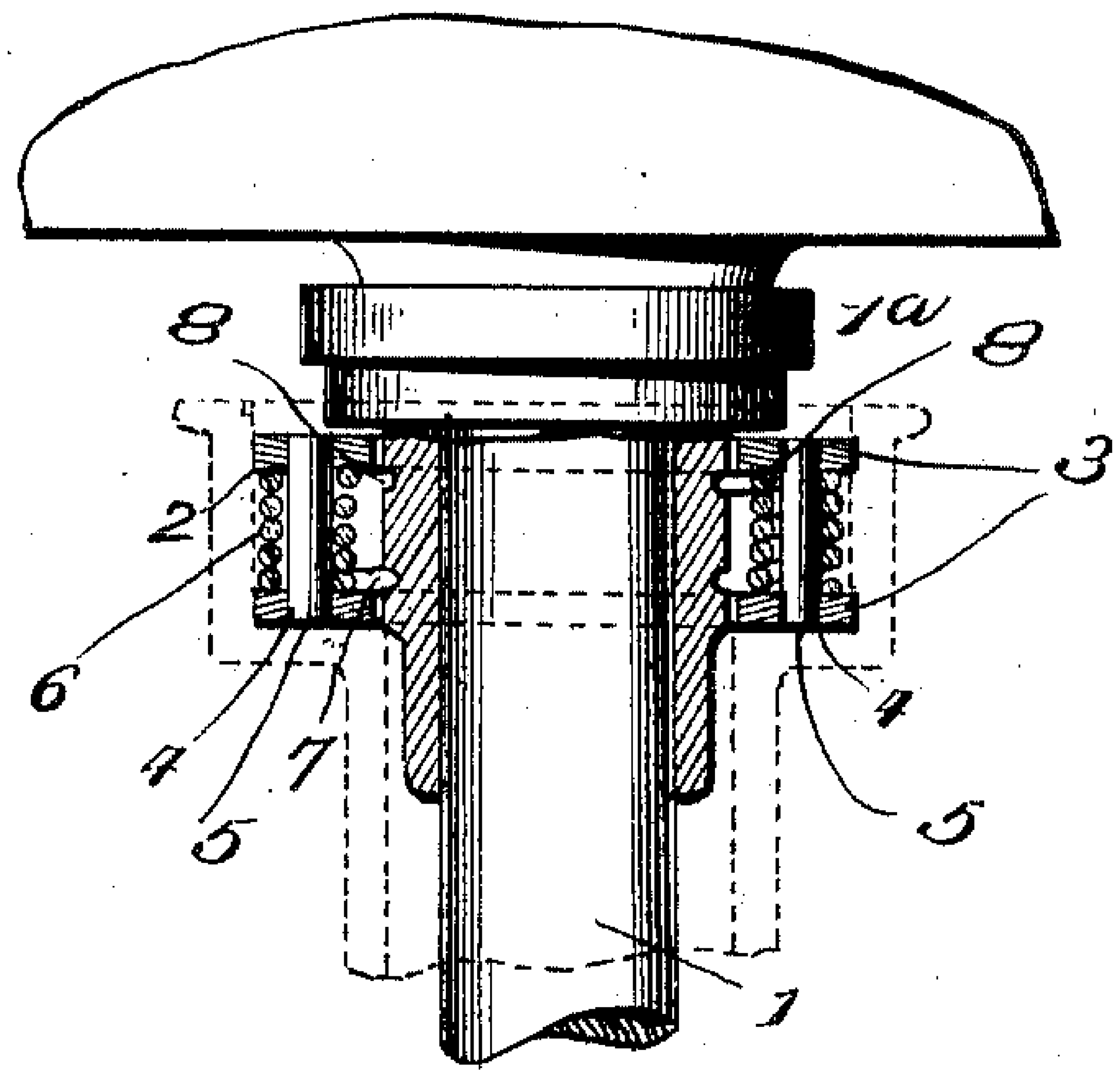


Fig. 2.

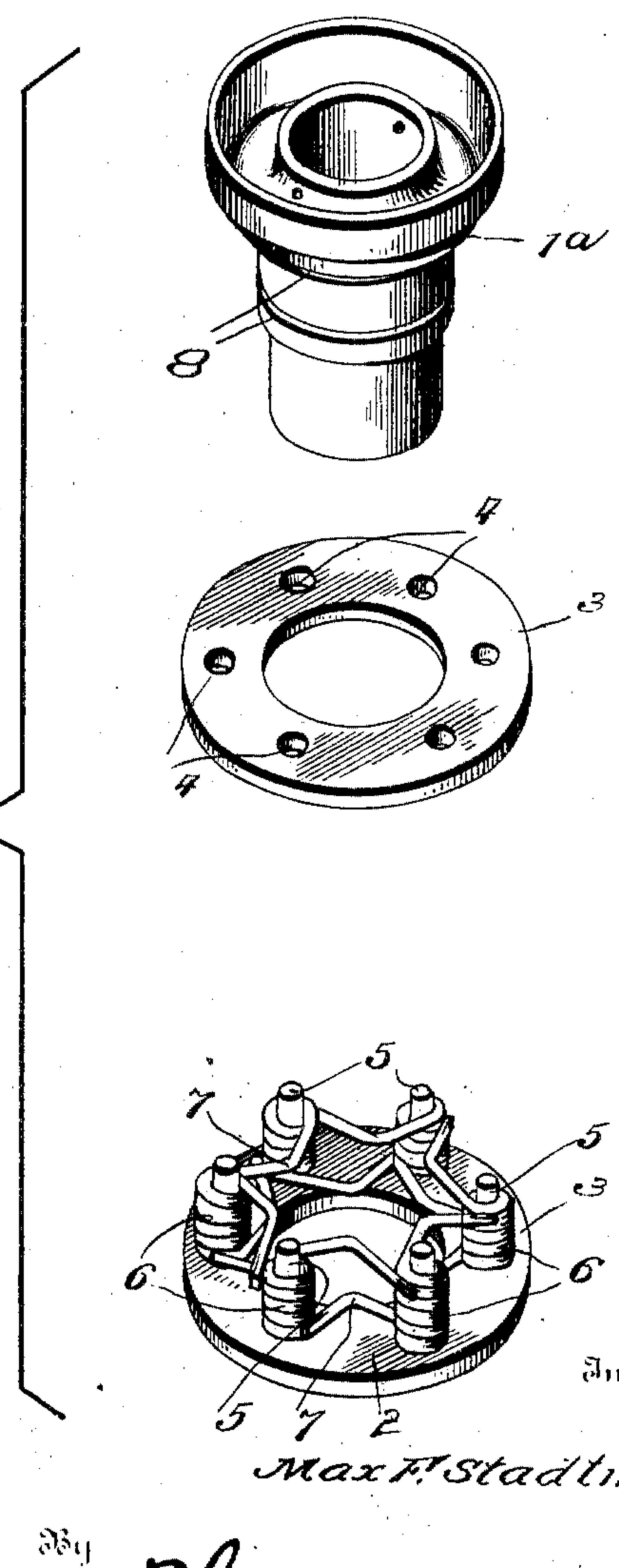
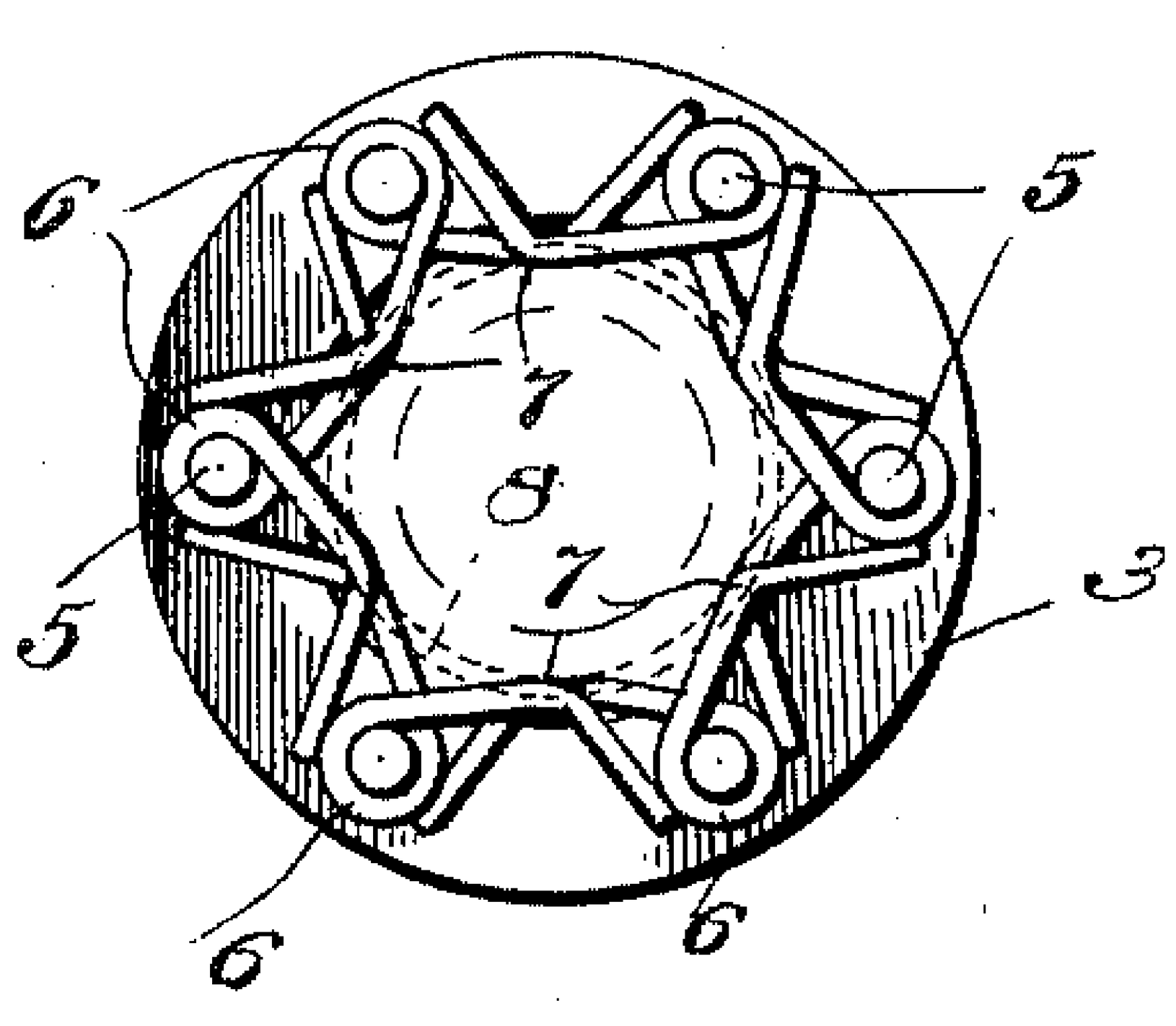


Fig. 3.



Witnesses

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Inventor

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By

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No. 760,033. Patented May 17, 1904.

UNITED STATES PATENT OFFICE.

MAX F. STADTMULLER, OF POMEROY, IOWA.

JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 760,033, dated May 17, 1904.

Application filed January 14, 1904. Serial No. 189,040. (No model.)

To all whom it may concern:

Be it known that I, MAX F. STADTMULLER, a citizen of the United States, residing at Pomeroy, in the county of Calhoun and State of Iowa, have invented certain new and useful Improvements in Journal-Bearings, of which the following is a specification.

This invention aims to provide an improved form of bearing which is specially adapted for use in connection with centrifugal cream-separators, though susceptible of a broad application where a bearing designed to absorb vibration may be advantageously used.

As is commonly known, it is necessary in separators of the type above mentioned to drive the creaming-receptacle centrifugally at a high rate of speed, which causes a great amount of jar and vibration, damaging to the framework of the support; and it is a special object of my invention to absorb the vibration aforesaid to obviate any damaging effects thereof. Specifically, the means for taking up the vibration comprises a spring journal-boxing, the structure of the said journal-boxing constituting my invention.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view, partially broken away, of the invention, showing a journal supported in the boxing, the latter being mounted in a casing illustrated in dotted lines. Fig. 2 is a detail view of the bearing, parts separated. Fig. 3 is a top plan view showing the upper plate of the bearing removed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, 1^a designates a journal, which in this instance is of tubular form similar to the type used in cream-separators. However, it will be clearly understood that the invention may be used with as great advantage with other styles of journals as with that illustrated in the drawings within the contemplation of the invention. The journal 1 is received by the journal-sleeve 1^a, which is mounted in the bearing or boxing 2, the latter consisting of a support composed of corresponding concentric plates 3, said plates being provided with corresponding journal-openings 4. The plates 3 are connected by means of intermediate bars 5, which are suitably secured to the plates and about which are disposed spring-pressure devices in the form of coil-springs 6. The springs 6 are of a peculiar form, specially constructed to engage the journal-sleeve 1^a, received by the bearing or boxing 2, whereby the vibration or jar may be entirely taken up by the said springs. Each spring has the upper and lower end portions thereof bent at an angle, as shown at 7, the bent portions being projected inwardly, so as to extend beyond the peripheries of the openings 4 in the plates 3, and the said bent portions 7 contact with the journal-sleeve 1^a, bearing firmly thereagainst from all sides. The extremities of each spring are disposed in contact with the adjacent spring, as will be clearly seen in the drawings. The journal-sleeve 1^a is in relative diameter smaller than the openings 4 of the bearing-plates 3, so that movement laterally will cause absorption of the vibration by the springs in a manner clearly apparent.

When the journal-sleeve 1^a is constructed for special coöperation with a bearing as embodied in my invention, the same is provided upon the peripheral portion thereof with spaced annular grooves 8, which receive the angularly-bent portions of the ends of the springs, thereby affording a locking engagement of the bearing with the journal-sleeve, facilitating the absorption of the vibration to a certain extent.

The invention is very simply constructed and as a means for absorbing vibration may be very effectively used, and it will be understood that the use of a single bearing-plate only is essential, since the springs may be suit-

ably secured in position by any substantial means. The adjacent plates 3, however, are preferably embodied in the bearing.

Having thus described the invention, what is claimed as new is—

1. The combination of a journal, a journal-sleeve, a bearing or boxing therefor comprising a support or plate provided with a journal-opening receiving the journal-sleeve, and springs projected inwardly from the peripheral portion of the journal-opening and bearing against the journal-sleeve.

2. The combination of a journal, a journal-sleeve, a support or plate provided with an opening, and springs having their ends projected inwardly from the peripheral portion of the said opening into engagement with the journal-sleeve.

3. The combination of a journal, a journal-sleeve, plates provided with journal-openings, and springs interposed between the journal-plates and projected inwardly from the peripheral portion of the journal-openings and engaging the journal-sleeve.

4. The combination of a journal, a journal-sleeve, a support provided with a journal-opening to receive said journal-sleeve, and springs carried by the support and projected laterally therefrom so as to bear against the journal-sleeve aforesaid.

5. The combination of a journal, a journal-sleeve provided with an annular groove, a support or plate receiving the journal-sleeve aforesaid, and springs projected from the support or plate and engaging the groove of the journal-sleeve.

6. The combination of a journal, a journal-sleeve, journal-plates provided with journal-openings receiving the journal-sleeve, connecting-bars between said plates, and springs mounted upon said bars and projected inwardly into engagement with the journal-sleeve.

7. The combination of a journal, a journal-sleeve provided with spaced annular grooves, spaced journal-plates, bars connecting said plates at intervals, coil-springs mounted upon said bars and having the ends thereof bent angularly, the bent ends of the springs engaging with the grooves of the journal-sleeve.

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

MAX F. STADTMULLER. [L. S.]

Witnesses:

JOHN F. GUTZ,

M. F. MULLAN.