A. D. HUGHES.

VIBRATOR FOR SIEVES.

APPLICATION FILED SEPT. 21, 1917.

1,249,094. Patented Dec. 4, 1917.

Fig. 1.

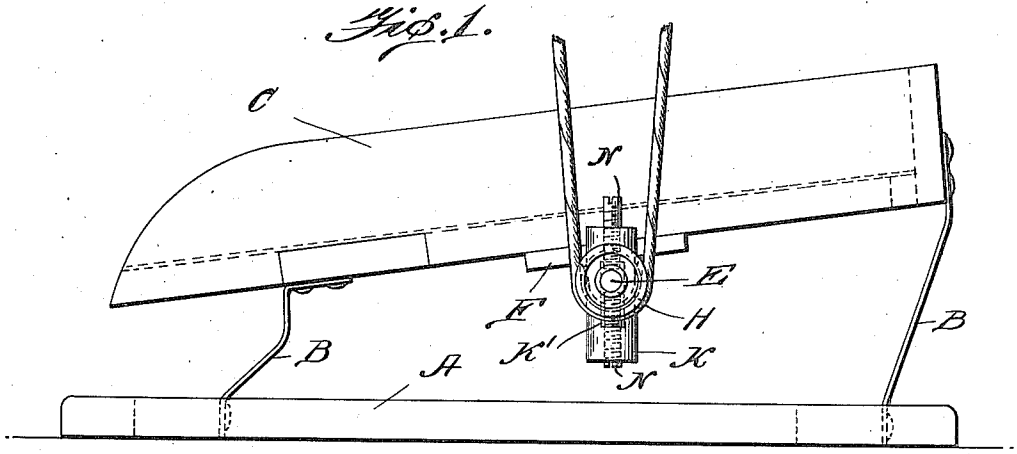


Fig. 2.

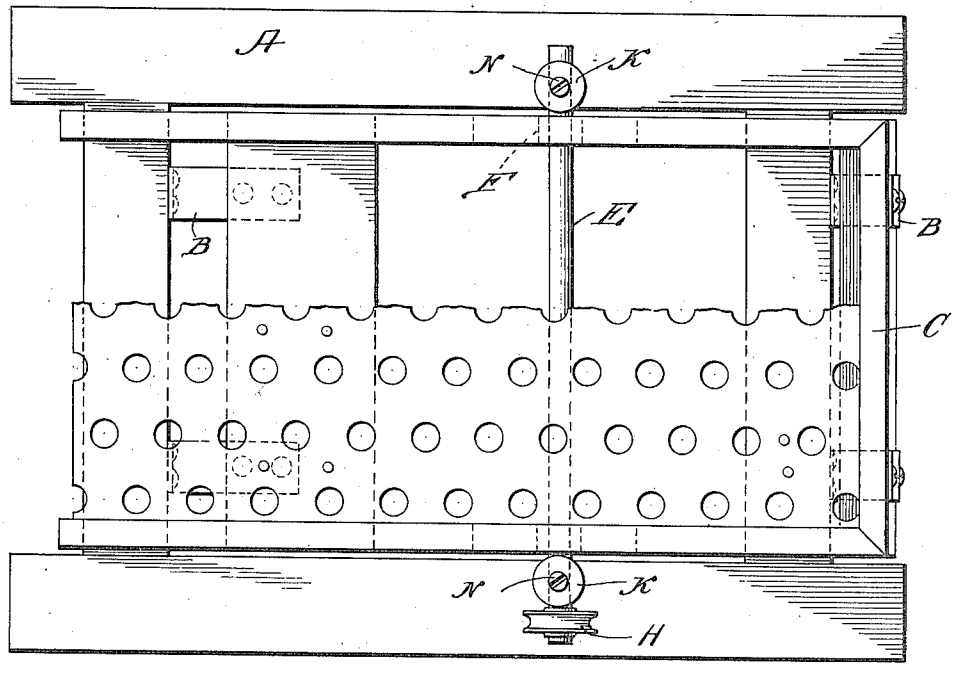
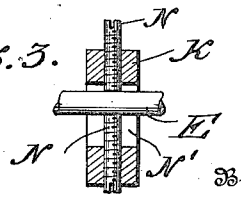


Fig. 3.



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UNITED STATES PATENT OFFICE.

ARTHUR D. HUGHES, OF WAYLAND, MICHIGAN.

VIBRATOR FOR SIEVES.

1,249,094. Specification of Letters Patent. Patented Dec. 4, 1917.

Application filed September 21, 1917. Serial No. 192,508.

To all whom it may concern:

Be it known that I, ARTHUR D. HUGHES, a citizen of the United States, residing at Wayland, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Vibrators for Sieves; and 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 the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements of vibrating sieve and the object in view is to produce a simple and efficient apparatus for dispensing with the usual eccentrics used in connection with rapidly vibrating sieves and consists essentially in the provision of adjustable weights mounted upon a rotatable shaft connected to the sieve, whereby the vibratory movement of the latter may be regulated, and provision of means for causing the sieve to move only in two directions.

The present invention comprises a simple and efficient device of this nature, having various details of construction, combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then defined specifically in the appended claim.

I illustrate my invention in the accompanying drawings which, with the letters of reference marked thereon, form a part of this specification and in which:

Figure 1 is a side elevation of my invention,

Fig. 2 is a top plan view, and

Fig. 3 is a detailed sectional view through an adjustable weight.

Reference now being had to the details of the drawings by letters:

A designates a base, having springs B fastened at their lower ends thereto, and C is a sieve to which the upper ends of said springs are fastened at the opposite ends, said springs being of different lengths and disposed at an inclination. A shaft E is journaled in bearings F upon the under side of the sieve and to which a pulley H is keyed, and to which power is applied from any suitable source. Adjustable weights, designated by letter K, are provided with elongated slots K′ adapted to receive the shaft, upon which they are mounted. Set screws N are mounted in threaded apertures in said weights and are adapted to engage the portions of the shafts upon which the weights are mounted, for the purpose of holding the latter in different relative positions, according as it may be desired to regulate the vibratory movement of the sieve. In the event of it being desired to minimize the vibratory movement the weights are moved so that the shaft will be positioned adjacent to the center of the weight, whereas, if an increased vibratory movement is desired, the weights are adjusted so that the shaft will be positioned at or near corresponding ends of the slots, and thereby causing, by centrifugal force, the desired vibratory movement to the sieve.

What I claim to be new is:

A member, yielding support upon which the same is mounted at an inclination, a shaft journaled in suitable bearings secured to the member, weights having elongated slots therein through which said shaft passes, said weights having longitudinal apertures in alinement with each other, the walls of which are threaded, adjusting screws mounted in said threaded apertures and adapted to bear against said shaft at points diametrically opposite.

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

ARTHUR D. HUGHES.

Witnesses:

HAROLD J. DELP,

L. P. RENO.