

(No Model.)

J. BALDWIN, Jr.

SHAKING, SETTLING, AND COMPACTING MACHINE.

No. 532,304.

Patented Jan. 8, 1895.

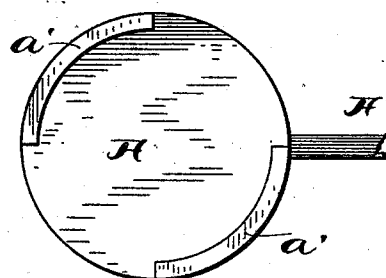
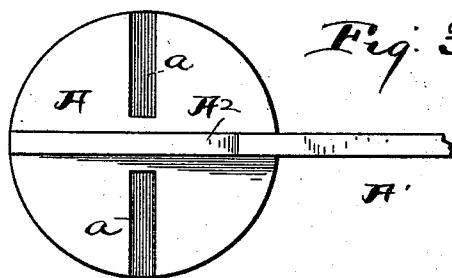
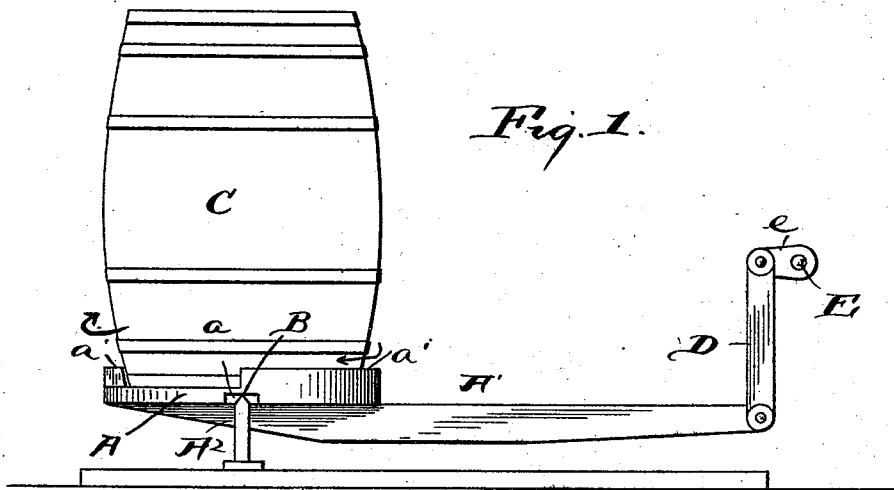
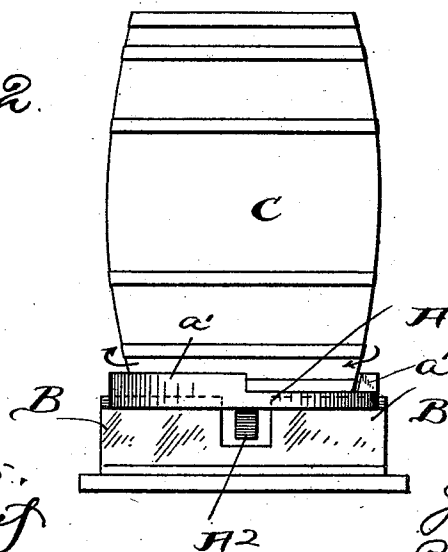


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN BALDWIN, JR., OF BALDWIN, LOUISIANA.

SHAKING, SETTLING, AND COMPACTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 532,304, dated January 8, 1895.

Application filed October 24, 1892. Renewed July 2, 1894. Serial No. 616,313. (No model.)

To all whom it may concern:

Be it known that I, JOHN BALDWIN, Jr., of Baldwin, in the parish of St. Mary's and State of Louisiana, have invented certain new and useful Improvements in Shaking, Settling, and Compacting Machines; 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 pertains to make and use the same.

My invention relates to improvements in shaking, settling and compacting machines, more especially designed for settling and compacting the contents of a barrel, keg or cask or other cylindrical or round vessel or container, the object being to more closely or compactly and more quickly and uniformly settle the contents of such vessels or containers than has heretofore been possible.

With this object in view, my invention consists in certain features of construction and in combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a left hand side elevation relative to Fig. 1. Fig. 3 is a bottom plan of the vibrating platform. Fig. 4 is a top plan of said platform.

A represents a vibrating platform that is preferably circular in plan as shown and is preferably supported or fulcrumed upon knife-edges B to render the platform as sensitive as practicable. The barrel, cask or vessel, C, the contents whereof are to be settled and compacted, is placed upon said platform. The fulcrum shown extends transversely and centrally of the platform, and it being preferable to have the knife-edge fulcrum as near the bottom of the barrel, cask or vessel as practicable in order to reduce the distance between said fulcrum and the upper end of the vessel or container to be shaken, I recess the under side or bottom of the platform, as at *a*, and allow the bottom or horizontal wall of said recesses to rest upon the fulcrum.

Rigid with and located centrally of the platform, and extending at right angles to the direction of the knife-edge fulcrum, is an arm, A', that is operatively connected by means of a link, D, with the crank *e* of a crank-shaft E that is rotated or driven in any suitable

manner. For the sake of economy in construction and durability, arm A' and platform A are preferably made of a single casting, and to reinforce the platform arm A' under the platform terminates in a web A² that extends preferably clear across the platform. It is obvious that the rotation of the crank-shaft will cause platform A and the barrel, cask or vessel upon it, to be vibrated or shaken.

An important feature of my invention consists in suitable means employed for causing the vessel or container to be shaken, to rotate while it is being shaken. Preferable means for effecting such rotary movement are shown in the device illustrated which comprises a pair of upwardly-projecting segmental flanges, *a' a'* at diametrically opposite sides of the platform and at opposite sides of an imaginary line extending centrally across the platform parallel with vibrating arm A'. Said flanges are located such a distance apart that when the barrel, cask or vessel is placed upon the platform centrally between said flanges a suitable space or clearance will be left between the cask or vessel and said flanges. By such construction, as the platform is vibrated, the cask or vessel upon the platform is by means of said upwardly-projecting flanges thrust circumferentially, that is thrust in the direction that said flanges extend from the aforesaid imaginary line, the direction in the present instance being indicated by arrows. Especially is this rotary movement of the cask or vessel marked when the platform is vibrated quite rapidly, for instance when the vibratory action is more rapid than the action of gravity, that is, when the respective sides of the platform drop, as it were, or tilt away from the adjacent side of the bottom of the cask or vessel so that, in tilting, the platform, before the cask or vessel has squarely engaged it, will have reversed its movement and arrest the tilting of the cask or vessel and cause the respective upwardly-projecting flange to thrust the barrel as hereinbefore indicated. Although this rotary movement of the cask or vessel is intermittent, when the platform is rapidly vibrated said movement will, to the vision, appear continuous. Such rotary movement of the cask or vessel enables every side of the cask or vessel to be equally and uniformly acted upon.

My improved machine is simple and durable in construction and will settle the contents of a cask or vessel more rapidly and more closely or compactly.

- 5 The platform should be located sufficiently near the floor or set into the floor so as to come flush therewith to facilitate the placing of the cask or vessel upon the platform and its removal therefrom, and the flangeless portion of the platform between flanges *a' a'*, enables the placing of the cask or vessel upon or its removal from the platform without coming in contact with flanges *a' a'* and without being obstructed by said flanges.
- 15 By the construction hereinbefore described wherein the vibrating platform covers its supporting fulcrum, the wearing surface of the latter is amply protected, dust, dirt, &c., being excluded, and the platform can, with facility, be lifted off from its fulcrum when the latter requires lubrication.

What I claim is—

1. The combination with a vibrating platform, adapted to hold a cask or similar vessel and supported on knife-edges, and a crank-shaft, of an arm rigid or integral with said platform, and a link operatively connecting said arm with the crank-shaft in such a manner that said platform will be vibrated upon the rotation of the crank-shaft, substantially as and for the purpose set forth.
2. The combination with a knife-edge, of a vibrating platform, adapted to hold a cask or similar vessel, fulcrumed upon said knife-edge, said fulcrum extending transversely centrally of the platform, and suitable means for vibrating said platform, substantially as set forth.
3. The combination with a knife-edge fulcrum, of a vibrating platform mounted upon said knife-edge fulcrum, and suitable means for vibrating said platform, the latter being recessed to cover and protect the wearing surface of the knife-edge fulcrum and bring the latter nearer to the top surface of the platform, substantially as set forth.
4. The combination with a knife-edge, and

a vibrating platform adapted to hold a cask or similar vessel, and fulcrumed upon said knife-edge, said fulcrum extending transversely centrally of the platform, of a vibrating arm rigid or integral with said platform and extending at right angles to said knife-fulcrum and under the platform, a crank-shaft and a link operatively connecting said arm with the crank of the crank-shaft, the aforesaid knife-fulcrum being cut away at the central portion to accommodate the vibrating arm, substantially as set forth.

5. In a machine of the variety indicated, a vibrating platform, adapted to support a cask or similar vessel, said platform having one or more upwardly-projecting flanges adapted, during the vibration of the platform, to thrust the cask or vessel to rotate the latter, substantially as set forth.

6. In a machine of the variety indicated, a vibrating platform adapted to support a cask or similar vessel, said platform at diametrically opposite sides and at opposite sides of its fulcrum, being provided with an upwardly-projecting flange, said flanges being arranged a suitable interval apart to adapt them, during the vibration of the platform, to thrust the cask or vessel to rotate the latter, substantially as set forth.

7. In a machine of the variety indicated, a vibrating platform adapted to support a cask or similar vessel, said platform at diametrically opposite sides and at opposite sides of its fulcrum, being provided with an upwardly-projecting flange, said flanges extending from or approximately from an imaginary line drawn centrally of the platform at right angles to the fulcrum to a point above and coincident with the fulcrum, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 21st day of September, 1892.

JOHN BALDWIN, JR.

Witnesses:

C. H. DORER,
WARD HOOVER.