J. C. PELTON.

COMPACTING APPARATUS.

APPLICATION FILED SEPT. 11, 1918.

1,306,620. Patented June 10, 1919.

Fig. 1.

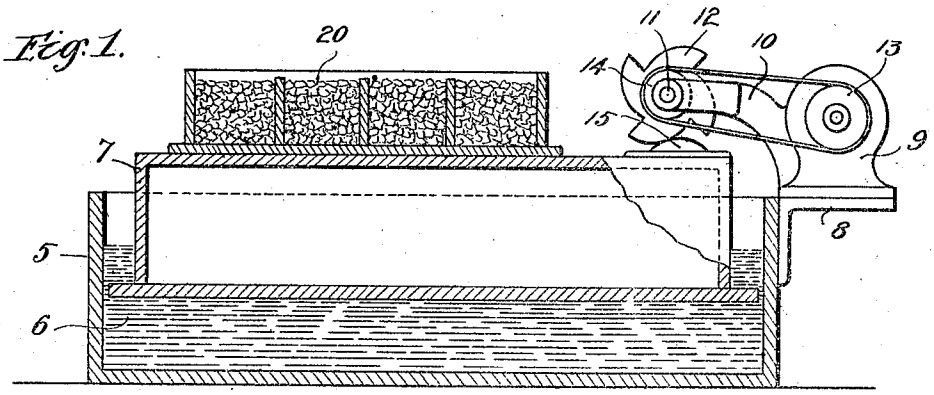
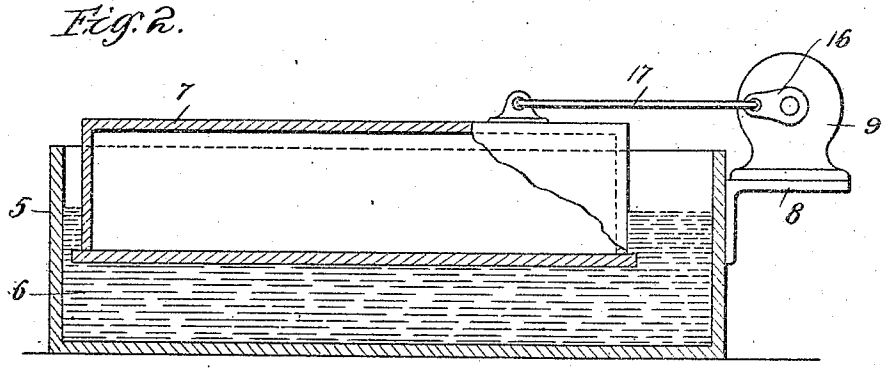


Fig. 2.



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COMPACTING APPARATUS.

1,306,620. Specification of Letters Patent. Patented June 10, 1919.

Application filed September 11, 1918. Serial No. 253,511.

To all whom it may concern:

Be it known that I, JOHN C. PELTON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Compacting Apparatus, of which the following is a specification.

My invention relates more particularly to a power driven apparatus adapted to settle into a compact mass, concrete in mold forms, and other materials in containers.

In the manufacture of articles from concrete it has been the practice to impart to the mold forms a jarring or oscillating movement to settle the mass in order to produce an extremely dense and solid article or object free from sand, air cavities, or other imperfections. This motion has generally been accomplished by mechanical means and applied to a platform or other support mounted on springs or other resilient instrumentalities which do not impart a uniform agitating movement to the support, resulting in some cases in imperfect products.

By the employment of a fluid supported platform or support, and imparting a constant jarring or agitating movement thereto, I am enabled to produce an extremely uniform motion to the mold forms, or containers, resulting in the production of articles of concrete or objects of a plastic nature free from imperfections.

It is an object of my invention to provide a compacting apparatus in which the movable support will be uniformly and evenly agitated throughout its entire area.

A further object of my invention is to provide an apparatus, whereby a large variety of agitating movements and combinations of the same may be imparted thereto to suit the type of materials that are being compacted.

I accomplish the above objects by means of the apparatus herein described and illustrated in the accompanying drawings, in which:

Figure 1 is a sectional view of a form of my improved apparatus.

Fig. 2 is a sectional view through a modified form of apparatus.

In the drawings I have illustrated an apparatus in which the main features of my invention are represented, the forms differing only in the means of communicating motion to the support. Other forms of producing a variety of motions may be employed, but I consider that the important feature of my invention resides in the resilient and elastic support for the forms and containers. Referring to Figs. 1 and 2 the apparatus preferably consists of a tank 5, of any desired size and configuration, preferably constructed from wood. This tank is nearly filled with water 6 and supported by the same is a chambered floating platform or support 7 of substantially the same configuration as the tank. Mounted on one side of tank 5 is a bracket 8, to which is rigidly secured a motor 9 of any approved type. The frame of motor 9 is provided with a bearing arm 10 which projects inwardly and over the top of support 7, and has a shaft 11 carrying a wheel 12 provided with a plurality of teeth. The shaft of motor 9 carries a driving pulley 13, which is belted to a driven pulley 14 secured to one end of shaft 11 to rotate the toothed wheel. Secured to the face of support 7 and directly beneath wheel 12 is a semi-spherical metallic contacting member 15 against which the teeth of wheel 12 contacts during the operation of the apparatus.

The operation of my apparatus will be instantly comprehended from the above description, the motion which is transmitted to the support being extremely even and uniform, and ranging from a delicate to a most violent one.

In Fig. 2 I have illustrated another form of agitating means consisting of substantially the same character of apparatus as in the first described form, the motor imparting a reciprocatory motion by means of a crank 16 secured to the motor shaft and a rod 17 pivotally secured to the upper face of the support.

Various other mechanisms for imparting a variety of motions to the support may be utilized, such as agitating the fluid in the tank by mechanical or pneumatic means, but I consider, as heretofore noted, that my invention primarily resides in a floating support.

In the first figure of the drawing, I have illustrated a concrete brick mold form 20 on the supporting platform 7, the form being divided by partitions into a plurality of compartments. Any other suitable forms

may be used in compacting various other materials with equally efficient results.

What I claim is:

1. In an apparatus of the class described, a fluid supported mold form, and means for imparting motion thereto.

2. In an apparatus of the class described, a fluid supported mold form, and means for imparting motion to said form to move the same in a plurality of planes.

3. In an apparatus of the class described, a fluid tank, a floating member mounted in said tank, a mold form mounted on said member, and means to impart movement to said member.

4. In an apparatus of the class described, a fluid tank, a chambered structure mounted in said tank and supported by the fluid therein, said structure being free to move in any direction, a mold form mounted on said chambered structure and means to impart movement to said chambered structure.

In witness that I claim the foregoing I have hereunto subscribed my name this 15th day of March, 1918.

JOHN C. PELTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."