H. HOEGLAUER.

DEVICE FOR AGITATING THE WATER IN BATHS.

APPLICATION FILED APR. 22, 1904. RENEWED FEB. 21, 1908.

916,152. Patented Mar. 23, 1909.

Fig. 1

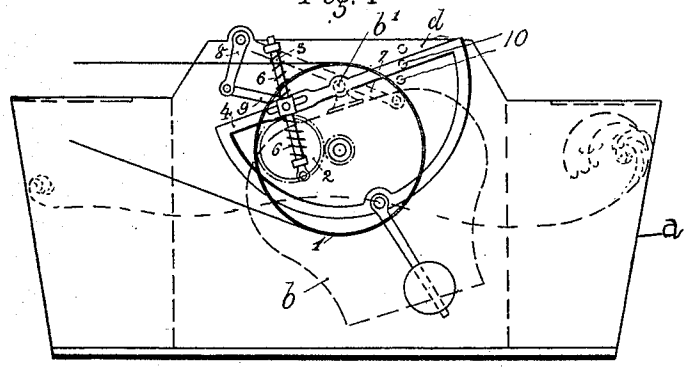


Fig. 2

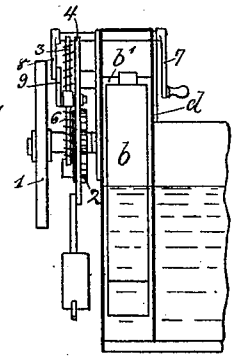


Fig. 3

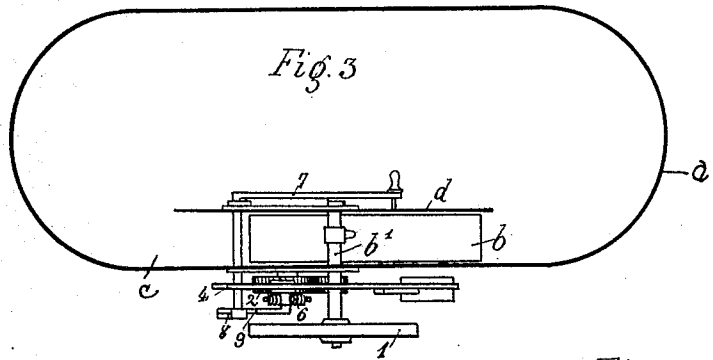


Fig. 4

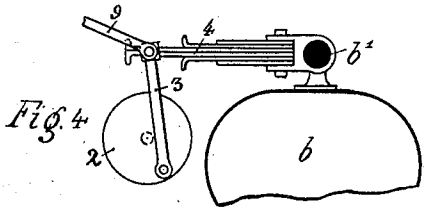


Fig. 5

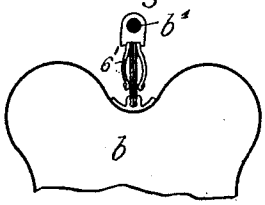
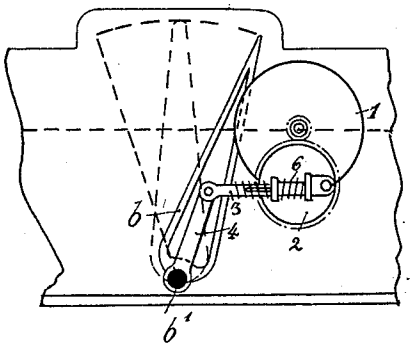


Fig. 6



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UNITED STATES PATENT OFFICE.

HEINRICH HOEGLAUER, OF MUNICH, GERMANY.

DEVICE FOR AGITATING THE WATER IN BATHS.

No. 916,152. Specification of Letters Patent. Patented March 23, 1909.

Application filed April 22, 1904, Serial No. 204,382. Renewed February 21, 1908. Serial No. 417,082.

To all whom it may concern:

Be it known that I, HEINRICH HOEGLAUER, citizen of Germany, residing at Munich, Bavaria, Germany, have invented certain new and useful Improvements in Devices for Agitating the Water in Baths; 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 appertains to make and use the same.

The present invention relates to devices for agitating the water in baths to cause a regular wave-like movement of the same and its object is to provide means whereby the wave making device shall have less movement on starting, so as not to violently agitate the water and splash it about when starting, but to yield at first and thus to gradually form regular waves and when once started to continue to make the waves regularly. The invention also comprises means for regulating the stroke of the agitating device to form larger or smaller waves.

In order to render the present specification easily intelligible reference is had to the accompanying drawing in which similar letters and numerals of reference denote similar parts throughout the several views.

Figure 1 is a side elevation of the device, Fig. 2 an end elevation with the bath in section, Fig. 3 a plan view of one form of embodying the invention: Fig. 4 is an elevation of a modified form of lever arm, Fig. 5 a further modified form of attachment for the agitator and Fig. 6 an elevation of a further modification of the agitator and the operating lever arm.

Parallel with one side wall of the bath *a* a plate *d* is arranged forming a channel *c* in which the wave making lever or agitator arm or body *b* is mounted to swing on its pivot *b'*. Mounted adjacent to the pivot *b'* is a stub shaft having at its outside end a belt pulley 1 having a suitable belt and being connected up by means of suitable tooth or other gearing so as to drive a crank pin disk 2 suitably mounted on the outside of the bath and having a connecting rod 3 connecting it to a swinging lever 4 fast to the pivot *b'* and adapted to rock the same when the crank pin disk is rotated.

The connecting rod 3 is yieldingly coupled to the rocking arm 4 by means of a pin and slot connection, the pin which engages a slot of the rocking arm 4 being movable on the said connecting rod 3 and being held in approximately the central position thereon by means of two springs 6 so that on starting the apparatus, the wave agitating arm or body will yield to the resistance of the water, so that the first strokes of the same will be shorter and of a yielding nature, and thus the water will not be splashed, but will be gradually and successively stirred up to form regularly recurring waves. This yielding motion of the stirrer, or agitating member may be attained in any desired or convenient manner and the present invention is in no wise restricted to the particular embodiments illustrated. For instance as shown in Fig. 4, the rocking arm 4 may be in the form of a spring which would yield sufficiently, or the agitating member *b* may be connected up by a spring or series of springs as at 6' in Fig. 5, or the connecting rod 3 may be formed of two members (Fig. 6) telescoping one into the other and controlled by a spring 6 or any other suitable means may be employed.

In apparatuses of this kind it is advisable to make the stroke of the agitating member variable and this may also be effected in any desired manner. In Figs. 1–3, the pin of the connecting rod is adjustable in the slot of the rocking arm 4 by means of a lever 7, pivotally mounted on the bath and having rigidly attached to its pivot a second arm 8 coupled by means of a connecting link 9 to the pin of the connecting rod 3. The lever 7 may be retained in any desired position by means of a suitable spring catch or it may be adapted to spring into suitable depressions 10 in the wall of the bath. The adjustability of the stroke of the agitating member may be attained in any other suitable manner.

I claim as my invention:—

1. A wave forming device comprising, in combination, an open bath, an oscillating member pivoted to swing therein, a lever arm secured in fixed relation to the oscillating member, a crank, a connecting rod coupled to the crank, a pin movably mounted in the rod and connecting the same to the lever arm, springs controlling the location of the pin in the rod, and means for driving the crank.

2. A wave forming device comprising, in combination, an open bath having a wall spaced from one side thereof, an oscillating member pivoted to swing between the side of the tub and the wall, a lever arm secured in fixed relation to the oscillating member, a

crank, a connecting rod coupled to the crank, a pin movably mounted in the rod and connecting the same to the lever arm, springs controlling the location of the pin in the rod, and means for driving the crank.

3. A wave forming device comprising, in combination, an open bath, an oscillating member pivoted to swing therein, a slotted lever arm secured in fixed relation to the oscillating member, a crank, a connecting rod coupled to the crank, a pin movably mounted in the rod and engaging the slot in the lever, springs controlling the location of the pin in the rod, means for adjusting the point of engagement of the pin with the slot, and means for driving the crank.

4. A wave forming device comprising, in combination, an open bath, an oscillating member pivoted to swing therein, a slotted lever arm secured in fixed relation to the oscillating member, a crank, a connecting rod coupled to the crank, a pin movably mounted in the rod and engaging the slot in the lever, springs controlling the location of the pin in the rod, a second lever, pivoted to a fixed support, a connection between one end of the second lever and the pin, and means for securing the other arm of said lever in different positions to change the point of engagement of the pin with the slot and thereby vary the stroke of the oscillating member.

In testimony whereof I affix my signature to this specification, in the presence of two witnesses.

HEINRICH HOEGLAUER.

Witnesses:
ULYSSES J. BYWATER,
ABRAHAM SCHLESINGER.