T. J. BEAUDETTE.

WAVE MOTOR.

APPLICATION FILED JULY 21, 1908.

915,153.

Patented Mar. 16, 1909.

Fig. 1.

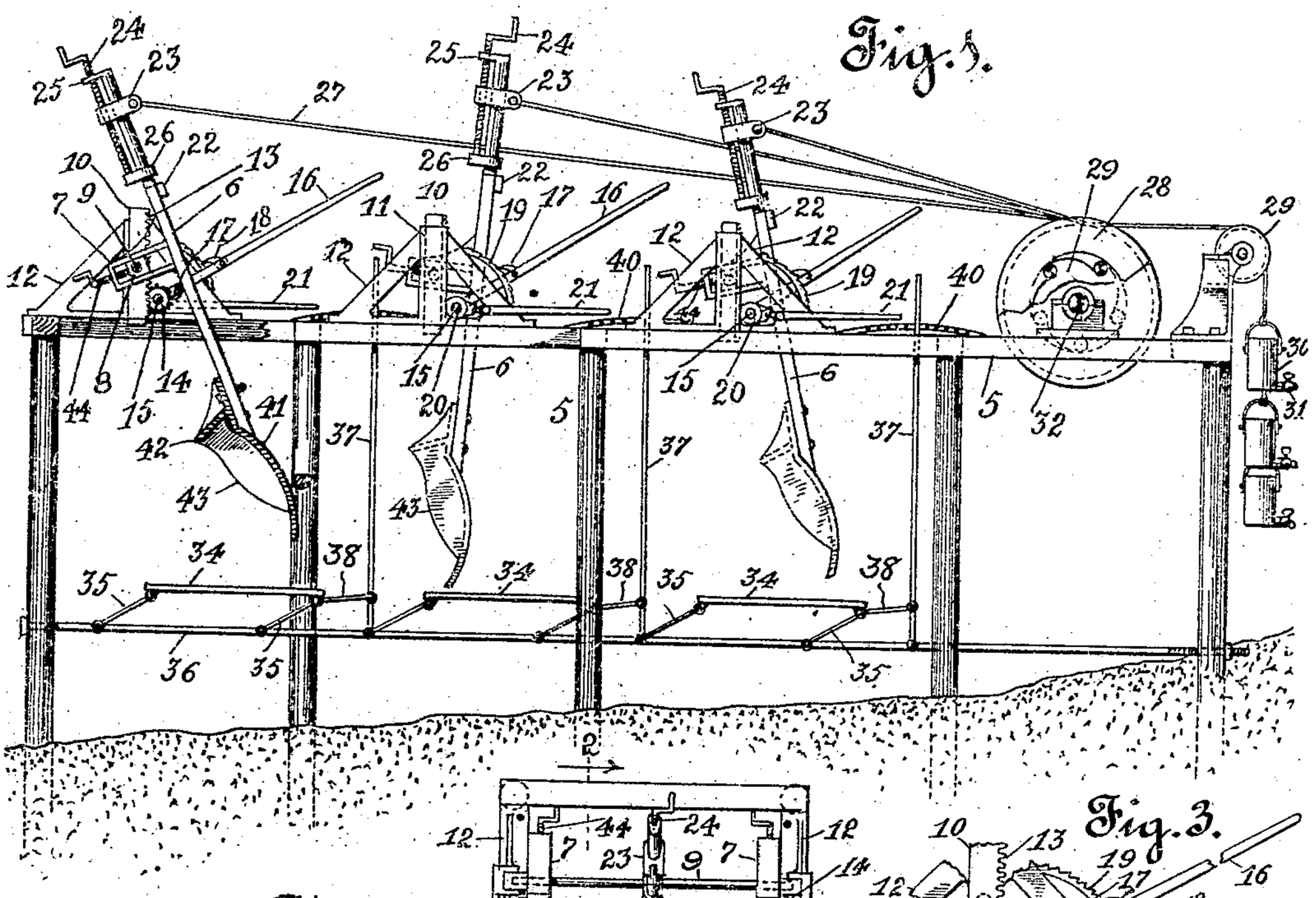

Fig. 2.

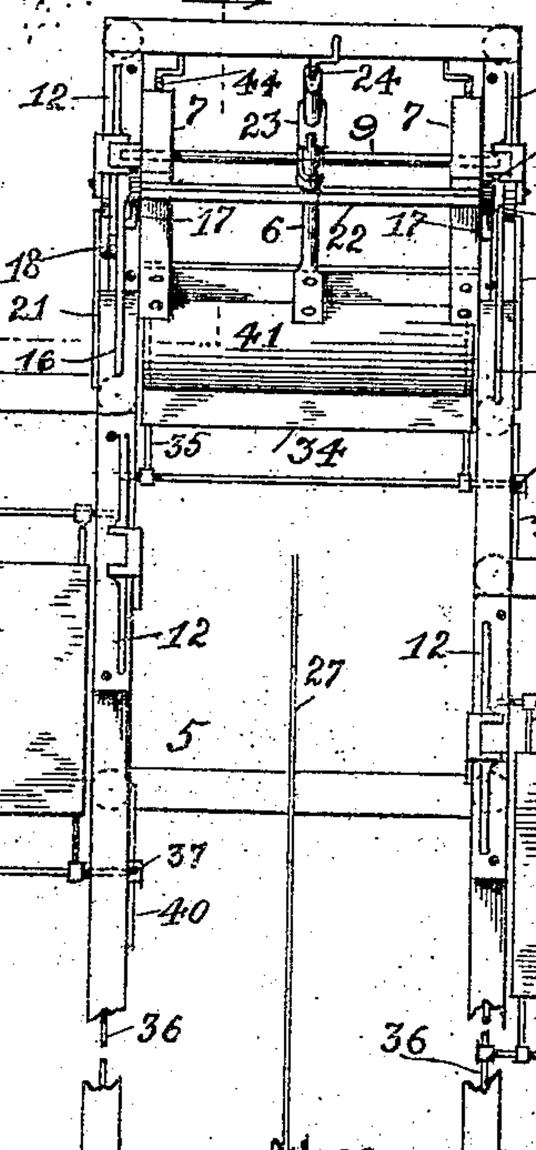

Fig. 3.

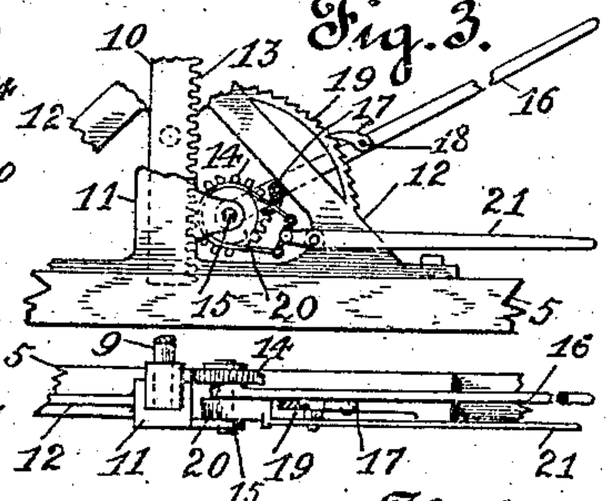

Fig. 4.

Witnesses.

H. Montevercle.

S. B. Austin.

Inventor,

Telesphore J. Beaudette,

By Dorpham

Attorney.

UNITED STATES PATENT OFFICE.

TELESPHORE J. BEAUDETTE, OF LOS ANGELES, CALIFORNIA.

WAVE-MOTOR.

No. 915,153. Specification of Letters Patent. Patented March 16, 1909.

Application filed July 21, 1908. Serial No. 444,644.

To all whom it may concern:

Be it known that I, TELESPHORE J. BEAUDETTE, a citizen of the United States, residing in the city of Los Angeles, county of Los Angeles, and State of California, have invented new and useful Improvements in Wave-Motors, of which the following is a specification.

It is the object of my invention to utilize the power produced by the action of the waves by means of a plurality of paddles and levers operated by such wave action, and also to provide means for bringing the levers back to normal positions, and also for protecting the bed of the ocean against being washed out beneath the paddles, and also in arranging mechanism beneath each paddle which is capable of adjustment so as to produce a most efficient action of the wave upon the paddles and levers whether the waves be high or low.

My device is illustrated in the accompanying drawings in which:

Figure 1 is a side elevation of my improved wave motor with parts broken away for clearness of illustration. Fig. 2 is a plan partly broken away in which one complete paddle and mechanism is shown, the position of others being shown diagrammatically. Fig. 3 is an enlarged broken detail of part of the paddle mechanism. Fig. 4 is a top plan of Fig. 3.

In the drawings 5 is a wharf structure which is placed in a body of water subject to wave action a suitable distance from the shore. Upon this wharf structure are mounted power levers 6 which are provided with bearing arms 7, which slide upon shaft boxes 8. In these shaft boxes are mounted shafts 9 which pass through and are supported by the vertically movable racks 10. These racks are guided vertically by guide sleeves 11 which are braced by braces 12. On one side of the racks are secured teeth 13 which engage with pinions 14, mounted on shafts 15 adjacent to the guide sleeves. Upon shaft 15 is also mounted a lever 16 which is provided with a dog 17, by means of which the pinion 14 can be operated to raise the rack 10. Dog 18 engages rack 19 and holds the lever after the rack has been adjusted.

20 is a brake wheel rigidly secured upon shaft 15 and is adapted to be engaged by brake lever 21 so that when dog 17 is disengaged from rack 19 the paddles can be lowered.

There are preferably three power levers secured to each paddle, one at each end and one in the center, these are connected by the cross bar 22. The central lever extends preferably to a greater height than the other lever of each paddle and is provided with a sleeve 23 which slides longitudinally upon the top portion of the lever. The position of this sleeve is controlled by screw 24 which is revolubly mounted in bearings 25 and 26 secured to the lever. A cable 27 is secured to sleeve 23 and runs around clutch drum 28 and thence over direction changing pulley 29 and is provided with a bucket 30 on the end thereof. This bucket has a cock 31 at the bottom thereof, so that the water which is put into the bucket can be emptied therefrom as desired. The purpose of this bucket is to counterbalance the paddle and to aid the same in returning quickly to its operative position and to take up the slack of the cable. Drum 28 forms the outer member of a clutch and 29 is the inner member of the clutch. This clutch is secured upon the power shaft 32 upon the outer end of which is secured the driving pulley 33 which transmits power to driven machinery not shown. Below each paddle is mounted an adjustable apron 34 which is secured by link bars 35 to the stringers 36, the connections being all pivotal connections. An operating lever 37 is also pivotally secured to the stringer Link bar 38 is pivotally secured to lever 37 and to apron 34. Near the top of lever 37 is a notched quadrant 40 to hold the lever in its adjusted position. By means of lever 37 apron 34 can be adjusted to lie closer to or farther away from the paddles, thereby permitting more or less water to pass between the apron and the paddle as desired, depending upon the height of the wave. The paddles are composed of the back wall 41, top ledge 42, and end walls 43 thereby forming a scoop shaped paddle which is secured upon the ends of the power lever. These paddles are secured in such manner that they are staggered in position on the wharf and are oscillated by the wave action.

It will be observed that the bearing boxes of the power levers slide upon the shaft boxes, which boxes form the fulcrums of the

power levers, and screws 44 adjust the position of the power lever bearing boxes upon the shaft boxes. When the tide rises and falls or as the wave action is greater or less the paddles are raised or lowered as desired by means of the rack and pinion before described. There is a plurality of power paddles which are at different distances from the shore, but the cables from the paddles run over clutch mechanism mounted on a common power shaft, so that there shall be provided a practically constant power to drive the power shaft.

Having described my invention what I claim is:

1. In a wave motor a plurality of power levers having paddles on their lower ends arranged in staggered relation to each other; means for supporting said power levers intermediate the ends thereof; means for changing the point at which said levers are supported; means for raising and lowering said power levers; supporting means connected to the top of said power levers for transmitting the power thereof; and means for shifting the connection of the power transmitting means with reference to the levers.

2. In a wave motor a plurality of power levers having paddles on their lower ends, said levers being arranged in staggered relation to each other; adjustable means for supporting said power levers intermediate the ends thereof; adjustable means for raising and lowering said power levers; means connected to the top of said power levers for transmitting the power thereof; and adjustable means for shifting the connection of the power transmitting means with reference to the levers.

3. In a wave motor a plurality of power levers having paddles on their lower ends; bearing arms secured to said levers intermediate the ends; shaft boxes mounted in said arms; means to shift the position of said arms on said shaft boxes; a shaft mounted in said shaft boxes; adjustable means for supporting said shafts; a sleeve slidably mounted on the top of the power lever; means to shift the position of said sleeve; a power shaft; a clutch upon said power shaft; a cable secured to the sleeve of the power lever running around the clutch; and take-up means secured on the end of said cable.

4. In a wave motor of the character described herein the combination of power levers having paddles on the lower ends; with means below said paddles for holding the water below said paddles from cutting the soil beneath the same.

5. In a wave motor of the character described herein, power levers having paddles on their lower ends; adjustable supporting means secured to said levers intermediate the ends thereof; and means adjustably connected to the top of said levers for transmitting the power thereof.

In witness that I claim the foregoing I have hereunto subscribed my name this 16th day of July, 1908

TELESPHORE J. BEAUDETTE.

Witnesses:
G. E. HARPHAM,
S. B. AUSTIN.