

M. B. BAKER & J. A. KENDER.

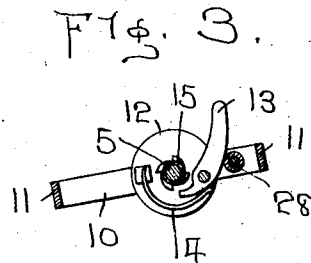
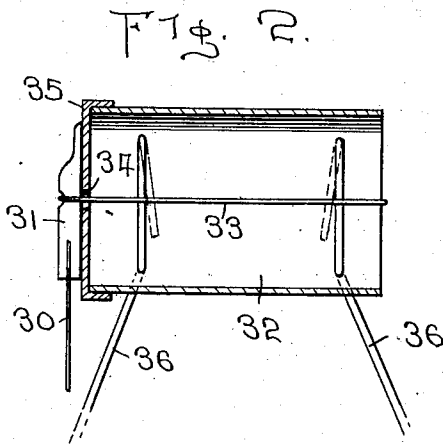
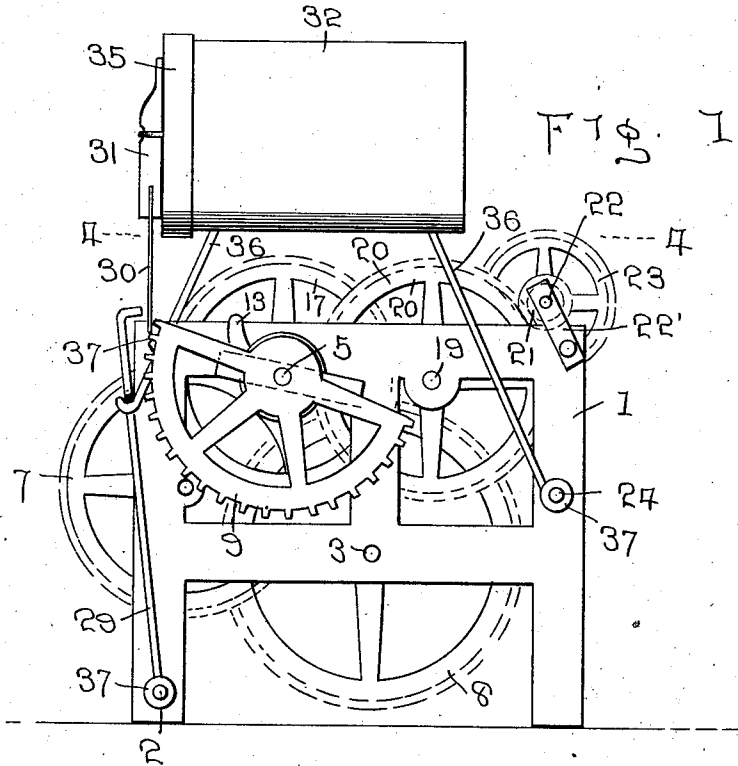
DUCK DECOY.

APPLICATION FILED JUNE 15, 1911.

1,021,910.

Patented Apr. 2, 1912.

2 SHEETS—SHEET 1.



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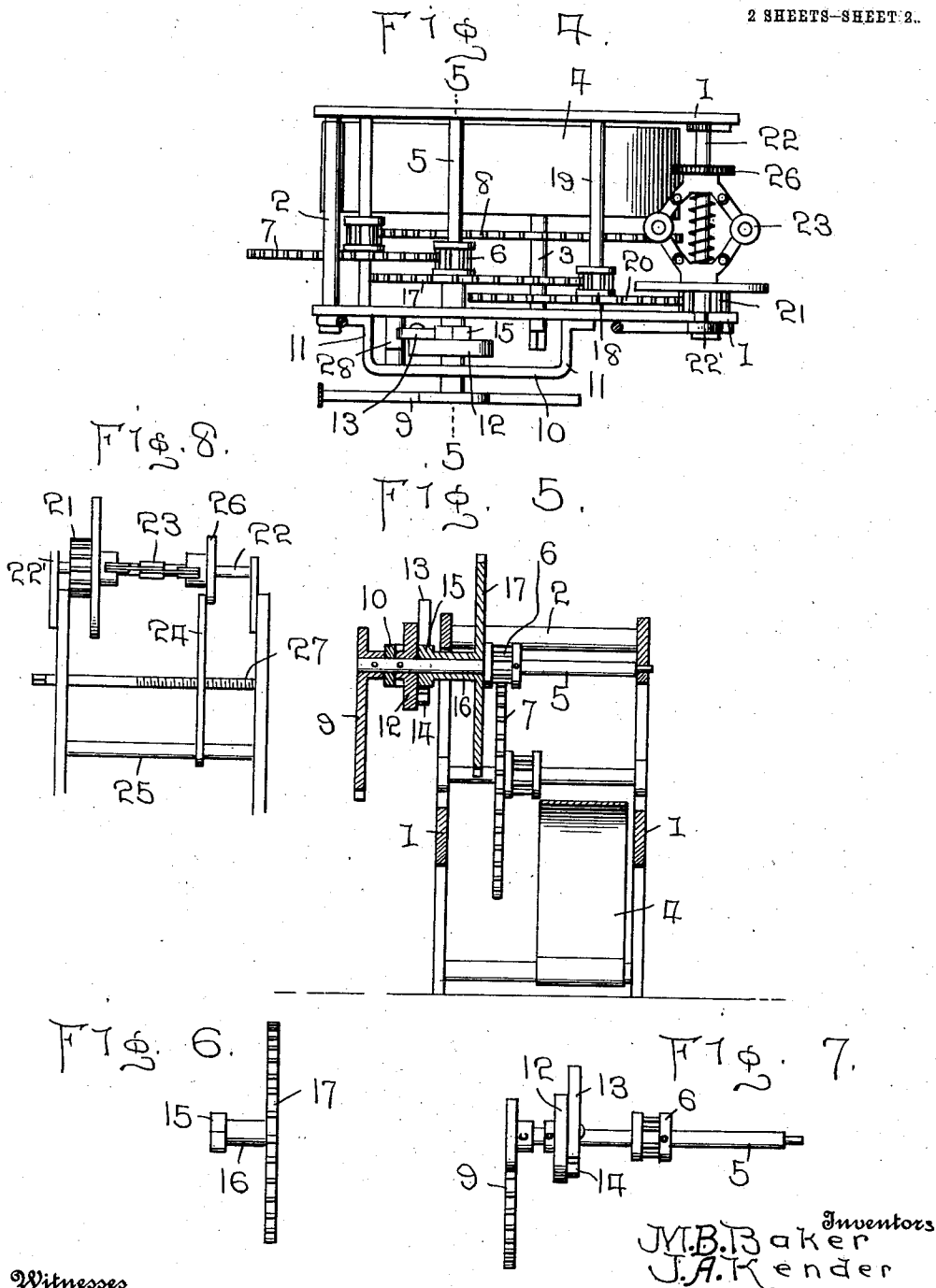
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UNITED STATES PATENT OFFICE.

MICHAEL B. BAKER AND JOSEPH A. KENDER, OF WHITING, INDIANA.

DUCK-DECOY.

1,021,910.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed June 15, 1911. Serial No. 633,261.

To all whom it may concern:

Be it known that we, MICHAEL B. BAKER and JOSEPH A. KENDER, citizens of the United States, residing at Whiting, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Duck-Decoys; and we 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.

This invention relates to decoys and more particularly to duck decoys.

An object of the invention is to provide a decoy which will attract ducks and call them within range of the hunter's gun.

Another object is to provide a device of this character which will effectively imitate the sounds made by ducks.

Another object is to provide a device of the above stated nature, which will imitate the voice of a duck so effectively that it will deceive this class of fowls and attract them in the direction of the decoy.

Another object is to construct a device of this character which may be operated at the will of the sportsman, and, another object is to provide mechanism of this nature which may, if desired, be inclosed within a dummy duck to present the appearance of a real, live duck.

Other objects and advantages will be hereinafter set forth and pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a side elevational view of the decoy. Fig. 2 is a longitudinal sectional view through the sound producer of the decoy. Fig. 3 is a detail sectional view of the automatic regulator of the decoy. Fig. 4 is a cross sectional view on the line 4—4 of Fig. 1. Fig. 5 is a cross sectional view on the line 5—5 of Fig. 4. Fig. 6 is a detail view of the sleeve having the large gear wheel on one end and the small ratchet wheel on the opposite end, said sleeve being removed from its shaft. Fig. 7 is a detail view of the main shaft and the parts rigid therewith, and, Fig. 8 is a side view at right angles to Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the parallel plates forming the framework for holding shafts and gear

wheels, held in spaced position by the corner posts 2, as will be understood. Secured in the plates 1, near the center of the plates, is the spring carrying shaft 3, to which is secured one end of the coil spring 4, the opposite end of the spring being secured to one of the corner posts 2.

In the upper edge of the side plates and near the center thereof is mounted the main shaft 5, one end thereof projecting through the front plate for the purpose of carrying parts which will be later described. Rigidly mounted on this shaft between the plates 1, is the small gear 6, with which meshes a large gear 7, which latter may be operated by the wheel 8 carried on the shaft 3, or by a train of gears positioned between these two wheels, for rotating the shaft 5 during the unwinding of the spring 4. Rigid with the projecting end of the shaft 5 is the segmental gear wheel 9. The shaft 5 extends through the straight central portion 10 of a bracket having its ends 11 bent at right angles and parallel to one another, the extremities of these ends being secured to the outer face of the front plate 1. Mounted on the shaft 5 between the straight portion 10 of the bracket and the front plate 1, is the disk 12, which is rigid with the shaft and has pivoted upon its under face the pawl 13, which is resiliently held in normal position by means of the coil spring 14, which is also secured to the under face of the disk 12 and has its free end pressing against the pawl 13.

The inner end of the pawl 13 is normally in engagement with the teeth of the small ratchet 15 carried upon one end of the collar 16, which is loosely mounted upon the shaft 5 and has the large gear wheel 17 upon its opposite end. The sleeve 16 is of such length that the wheel 17 rests loosely against the small gear wheel 6, while the ratchet 15 rests against the under side of the disk 12 so as to be engaged by the inner end of the pawl 13 when the latter is in normal position. The large gear wheel 17 meshes with the small or pinion gear 18 carried upon the shaft 19, which also has mounted thereon the large gear 20 meshing with a small gear 21 mounted on the governor shaft 22, upon which governor shaft is carried an ordinary rotary ball governor 23.

It will thus be seen that there are two sets

of gears, one set beginning with the wheel 8 on the spring shaft 3 and ending with the small gear 6 on the main shaft 5; the other beginning with the large gear wheel 17 carried by the sleeve 16, which is loosely mounted on the main shaft 5, and ending with the small gear 21 on the governor shaft 22. The governor shaft 22 may have its ends mounted in parallel arms 22', pivoted to and extending from opposite corners of the plates 1 to allow the governor to be readily swung into or out of operative position. Suitable speed limiting means may also be provided for limiting the maximum speed of the governor. Any preferred limiting means may be employed, but we prefer to use an arm 24 having one end slidably mounted upon one of the plate spacing posts 25 about midway the corners of the plates 1, the opposite end of the arm resting above the slidable governor disk 26. The speed limiting arm 24 is adjusted by means of the threaded adjusting post 27 working through a threaded opening in the arm, one end of the adjusting post being mounted in the rear or bottom plate 1, while the opposite end extends through the other plate 1 to have secured thereupon a suitable key or handle (not shown) for rotating the adjusting bar.

Having one end mounted in the straight portion 10 of the bracket and carried upon the front or upper plate 1 and its opposite end mounted within this plate, is the anti-friction stop roller 28, against which the pawl 13 engages at each revolution of the main shaft 5.

Secured beneath the nut or enlarged head upon the end of one of the corner posts 2, is one end of the rod 29, which has its free end suitably bent and curved to rest adjacent the vibrator tongue 30 and limit the vibration thereof, said vibrator tongue being engaged by teeth on the segmental gear wheel 9 and thus caused to vibrate at each rotation of the main shaft 5 to imitate the quacking of a duck. One end of the vibrator tongue 30 is rigid with the vibration transmitter 31, which is resiliently held against the outer closed end of the sound box 32, the opposite end of said sound box being open, the purpose of which will be readily understood. The vibration transmitter 31 may be resiliently held against the closed end of the sound box 32 in any suitable manner, but we have shown the same as being held in place by the elastic cord 33 passing therearound and through the small central opening 34 in the head 35 and having its opposite ends secured to the edge of the open end of the cylinder. It will be understood, however, that when the elastic cord is employed it may be secured to the sound box 32 at any point desired and in any preferred manner.

The sound box 32 may be secured to the framework in any preferred manner, but we have illustrated the same as being fastened by means of rods 36 having their adjacent ends passing through and secured to the sound box, while their opposite ends extend in opposite directions at an angle to the sound box and are secured beneath the heads or nuts 37 carried on the ends of the spacing and supporting posts 2 and 24, it being understood that the ends of these posts project through these plates 1 and have enlarged heads or bolts upon their extremities. The end of one of the supporting rods 36 extends beyond the post 2 and is curved to be engaged around the bent portion of the rod 29 to retain the latter in proper position adjacent the vibrating tongue 30, which is extended between the extremity of this vibration limiting rod 29 and the teeth of the segment 9, when the teeth are engaging against the extremity of the vibrating tongue 30 and causing the latter to vibrate, the length of the vibrations being limited by the extremity of the limiting bar 29, as will be clearly understood.

When it is desired to call ducks by this duck decoy, the spring 4 is wound by applying a suitable key to the squared end of the shaft 3 and rotating the latter in the proper direction. When the spring is allowed to unwind it will cause the large gear wheel 7, by engagement with the latter of the gear wheel 8, or the train of gears between the gears 8 and the gear 7, to rotate and thus revolve the main shaft 5 by means of the small gear 6 rigid therewith. It will be understood that the pawl 13 engages against the stop roller 28 and as the shaft 5 rotates, the pawl will be drawn past the roller, the latter rotating freely to overcome friction. As soon as the shaft 5 has rotated far enough to draw the free end of the pawl 13 past the roller 28, the spring 14 will force the inner end of the pawl 13 in engagement with the ratchet 15, said spring being assisted in its action by the momentum caused by the rapid rotation of the shaft 5, said momentum tending to throw the outer end of the pawl outwardly from the shaft 5. As the ratchet 15 is carried upon the sleeve 16, which is loose upon the shaft, it will be seen that this sleeve and ratchet will be stationary during the first part of the rotation of the shaft 5, during the drawing of the pawl 13 past the roller 28. As soon as the pawl 13 has passed the roller 28, and the inner end of the pawl has been thrown into engagement with the ratchet 15, however, this ratchet and the sleeve by which it is carried will also be caused to rotate with the shaft 5. As the ratchet 15 and sleeve 16 begin to rotate the large gear wheel 17, also carried by the sleeve 16, will also rotate the small gear 18 upon the shaft 19 and cause

this shaft, through the medium of its large gear 20 in engagement with the small gear 21 of the governor shaft 22, to rotate said governor shaft. Consequently this second set of gears are brought into operation and the governor 23 will serve to reduce the speed of the rotation of the shaft 5 and hold the shaft to a predetermined rate of rotation until the revolution is nearly completed and the pawl 13 again comes into engagement with the roller 28. The spring 4 is of such strength that it will compel the shaft 5 to continue to rotate, drawing the pawl 13 past the roller 28 which serves to press the outer end of the pawl inwardly toward the shaft 5, disengaging the inner end of the pawl from the ratchet 15. As soon as the inner end of the pawl 13 is disengaged from the ratchet 15 the shaft 5 will rotate at an increased rate of speed until the outer extremity of the pawl 13 has passed the roller 13 and the spring 14 has pressed the inner end of the pawl again into engagement with the ratchet, at which moment the second set of gears will be again brought into operation and the governor will govern the speed of the shaft 5.

The sound box 32 is in such position and spaced from the framework and gears of the decoy to present the free end of the vibrating tongue 30 adjacent the bent extremity of the vibration limiting rod 29 so that this free end of the vibrating tongue will be engaged by the teeth of the segment wheel 9 during the time that the inner end of the pawl 13 is disengaged from the ratchet 15. It will be seen that as the vibrating tongue 30 is caused to vibrate it will vibrate against the curved extremity of the vibration limiting bar 29, which will limit the length of the vibrations. It will be understood that the vibrations of the vibrating tongue will also cause the vibration transmitter 31, to which the tongue is secured, to vibrate and transmit the vibrations to the sound box 32 from which sound box will emanate sounds similar to the quacking of a duck, imitating the duck quacking with such accuracy as to deceive this class of fowls and attract them in the direction of the decoy, so that they may be readily trapped or shot by the sportsman operating the decoy.

It will be understood that this mechanism may be readily inclosed within a dummy duck and the latter be positioned so that it may be seen by the ducks. It will be apparent that a dummy duck having this mechanism inclosed so that it may be apparently quacking the same as a live duck will readily deceive the live fowls and attract them in the desired direction.

What we claim is:

1. A device of the class described comprising a vibrator, a segmental gear for op-

erating upon the vibrator and causing the latter to vibrate, means for operating said segmental gear, a vibration transmitter connected with the vibrator, a sound box, said vibration transmitter being resiliently connected to said sound box, and means for regulating the operation of said segmental gear.

2. A duck decoy comprising a segmental gear carried upon a shaft, means for rotating said shaft to revolve the segmental gear, means for controlling the rotation of said shaft, a vibrator tongue carried by a vibrator transmitter, said segmental gear being adapted for engagement with the vibrator tongue during a part of each revolution of said gear to compel the vibrator tongue to vibrate, means for limiting the length of the vibrations of said vibrator, a sound box, the vibrator transmitter being resiliently engaged against a closed end of the sound box, and means for holding said vibration transmitter resiliently engaged against said closed end of the box.

3. A device for imitating the quacking of a duck, comprising a vibrator, a sound box, connections between said vibrator and said sound box, means for intermittently engaging against and vibrating the vibrator, means for operating the vibrator engaging means, means for limiting the length of the vibrations of the vibrator and means for intermittently controlling the vibrator intermittently engaging means between its engagements against the vibrator.

4. A duck decoy comprising a sound box, a vibrator resiliently connected with said sound box, a main shaft having a segmental gear rigid upon its upper end, a disk rigid upon said shaft, a small gear wheel rigid upon said shaft, a sleeve loose upon said shaft between said rigid gear wheel and said disk, said sleeve having a small ratchet wheel upon one end, one side of said ratchet wheel resting loosely against said disk, a large gear wheel integral with the opposite end of said sleeve and loosely resting against the side of the small rigid gear wheel, a pawl carried upon the face of the disk toward the ratchet wheel, the inner end of said pawl being adapted for engagement at times with the small ratchet wheel to lock the sleeve and large gear with the shaft, means carried by said disk for normally holding the inner end of said pawl in engagement with said ratchet, means for intermittently throwing the pawl out of engagement with the ratchet, means for operating said shaft, means operated by said large gear to regulate the speed of rotation of the shaft when the sleeve is locked with the shaft, said segmental gear being adapted to engage the vibrator during a portion of each revolution of said segmental gear and thus cause the vibrator to vibrate intermittently and cause sounds to emanate from the sound box intermittently

to imitate the quacking of a duck, and means for resiliently connecting said vibrator to the sound box.

5 A duck decoy comprising a sound box, a vibrator resiliently connected with said sound box, a main shaft having a segmental gear rigid upon its upper end, a disk rigid upon said shaft, a small gear wheel rigid upon said shaft, a sleeve loose upon said 10 shaft between said rigid gear wheel and said disk, said sleeve having a small ratchet wheel upon one end, one side of said ratchet wheel resting loosely against said disk, a large gear wheel integral with the opposite end of 15 said sleeve and loosely resting against the side of the small rigid gear wheel, a pawl carried upon the face of the disk toward the ratchet wheel, the inner end of said pawl being adapted for engagement at times with 20 the small ratchet wheel to lock the sleeve and large gear with the shaft, means carried by said disk for normally holding the inner end of said pawl in engagement with said ratchet, means for intermittently throwing the pawl 25 out of engagement with the ratchet, means for operating said shaft, means operated by said large gear to regulate the speed of rotation of the shaft when the sleeve is locked with the shaft, means for adjusting the speed regulating means for said shaft, said 30 segmental gear being adapted to engage the vibrator during a portion of each revolution of said segmental gear and thus cause the vibrator to vibrate intermittently and cause 35 sounds to emanate from the sound box intermittently to imitate the quacking of a duck, means for resiliently connecting said vibrator to the sound box, and means for supporting the sound box a spaced distance 40 from the main shaft.

6. A duck decoy comprising a sound box, a vibrator resiliently connected with said sound box, a main shaft having a segmental

gear rigid upon its outer end, a disk rigid upon said shaft, a small gear wheel rigid 45 upon said shaft, a sleeve loose upon said shaft between said rigid gear wheel and said disk, said sleeve having a small ratchet wheel upon one end, one side of said ratchet wheel resting loosely against said disk, a large 50 gear wheel integral with the opposite end of said sleeve and loosely resting against the side of the small rigid gear wheel, a pawl carried upon the face of the disk toward the ratchet wheel, the inner end of said pawl being adapted for engagement at times with 55 the small ratchet wheel to lock the sleeve and large gear with the shaft, means carried by said disk for normally holding the inner end of said pawl in engagement with said 60 ratchet, means for intermittently throwing the pawl out of engagement with the ratchet, means for operating said shaft, means operated by said large gear to regulate the speed of rotation of the shaft when the sleeve is 65 locked with the shaft, means for adjusting the speed regulating means for said shaft, said segmental gear being adapted to engage the vibrator during a portion of each revolution of said segmental gear and thus cause 70 the vibrator to vibrate intermittently and cause sounds to emanate from the sound box intermittently to imitate the quacking of a duck, means for resiliently connecting said vibrator to the sound box, means for supporting the sound box a spaced distance 75 from the main shaft, and means for supporting the shaft and parts connected therewith.

In testimony whereof we have signed our names to this specification in the presence of 80 two subscribing witnesses.

MICHAEL B. BAKER.
JOSEPH A. KENDER.

Witnesses:

JOHN E. WESTFALL,
THOMAS BOLAND.