

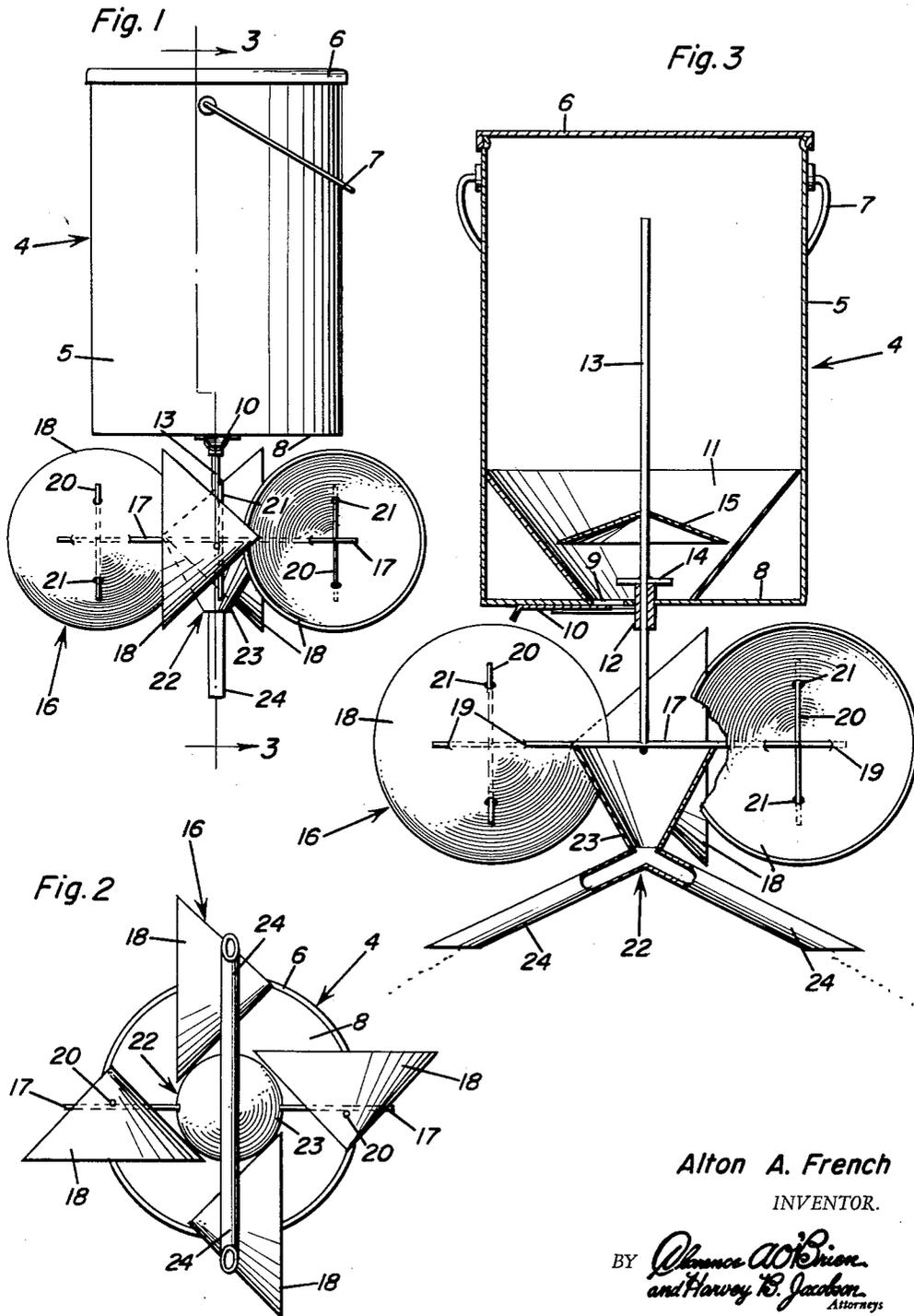
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A. A. FRENCH

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WILD GAME FEEDER

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Alton A. French
INVENTOR.

BY *Almon A. French*
and *Harvey B. Jacobson*
Attorneys

1

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WILD GAME FEEDER

Alton A. French, 817 W. Norwood Courts,
San Antonio, Tex.

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This invention relates to new and useful improvements in feeders particularly, although not necessarily, for wild game and has for its primary object to provide, in a feeder of the gravity discharge type, novel wind actuated agitating means for preventing clogging and ensuring a free, uniform flow of the feed.

Another important object of the present invention is to provide, in a manner as hereinafter set forth, a feeder of the aforementioned character comprising novel means, also wind actuated, for scattering the feed.

Still another important object of the invention is to provide a feeder of the character described wherein the agitating and scattering means are driven by a common wind actuated device.

Other objects of the invention are to provide a feeder of the character set forth which will be comparatively simple in construction, strong, durable, compact, of light weight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a view in side elevation of a feeder constructed in accordance with the present invention;

FIGURE 2 is a bottom plan view of the device; and

FIGURE 3 is a vertical sectional view on an enlarged scale, taken substantially on the line 3-3 of FIGURE 1.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a hopper which is designated generally by reference character 4. The hopper 4, which is for the reception of the feed, may be of any suitable material and capacity and said hopper includes a cylindrical receptacle or container 5 having mounted thereon a removable cover 6. Mounted on the upper portion of the container 5 is a bail 7 through the medium of which said container may be carried and hung on a suitable support. The bottom 8 of the container 5 has formed therein a discharge opening 9. Mounted beneath the bottom 8 of the container 5 is a slide valve 10 which controls the opening 9 and regulates the discharge of the feed therefrom. Mounted in the lower portion of the container 5 is an inverted frusto-conical guide ring 11 which directs the feed toward the opening 9.

Fixed in an opening which is provided therefor in the bottom 8 of the container 5 is a vertical tubular bearing 12. A vertical shaft 13 is journaled in an intermediate point in the bearing 12. Fixed transversely on the shaft 13 is a combined supporting pin and agitator 14 which rests on the upper end of the bearing 12. Also fixed on the shaft 13 and operable in the member 11 is a conical baffle or shield 15 which carries a substantial portion of the weight of the feed in the hopper 4 and assists in preventing clogging of said feed above and around the discharge opening 9.

Mounted on the lower end portion of the shaft 13 is a wind turbine 16 of the anemometer type. The turbine 16 comprises radial arms 17 which are fixed horizontally on the shaft 13. Conical wind cups 18 are fixed on the end portions of the arms 17. In the embodiment shown, the arms 17 are engaged in aligned openings 19 which are provided therefor in the closed or rear end portions

2

of the cups 18. Fixed vertically on the portions of the arms 17 which traverse the cups 18 are stabilizing rods 20. The end portions of the rods 20 are engaged in aligned openings 21 which are provided therefor in the cups 18.

Fixed beneath the arms 17 of the turbine 16 is a centrifugal scatterer 22. The scatterer 22 includes a cone 23 which is affixed to the arms 17 and which receives the feed by gravity from the discharge opening 9. Affixed to the lower end of the cone 23 and communicating therewith is a pair of downwardly divergent discharge nozzles 24.

It is thought that the operation of the feeder will be readily apparent from a consideration of the foregoing. Briefly, the hopper 4 is filled to the desired level with feed, the cover 6 is placed thereon and the device is suspended from a suitable support where it will be exposed to the wind. The slide valve 10 is then adjusted to the desired position for controlling the gravity discharge of the feed through the opening 9. The feed flows by gravity into the cone 23 of the scatterer 22. The wind drives the turbine 16 and the scatterer 22 rotates therewith for scattering the feed by centrifugal force through the downwardly divergent nozzles 24 in an obvious manner. Rotation of the turbine 16 also actuates the pin 14 for agitating and preventing the feed from clogging in the lower portion of the hopper 4, assisted by the baffle 15.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening on its lower portion, a vertical shaft rotatably mounted in the hopper and depending therefrom, an agitator for the feed mounted on the shaft and operable in the hopper, and a wind driven turbine mounted on and supported by the shaft for actuating same.

2. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening in its lower portion, a vertical shaft rotatably mounted on the hopper and depending therefrom, an agitator for the feed mounted on said shaft and operable in the hopper, and wind driven means mounted on the lower end portion of said shaft and supported thereby for actuating same.

3. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening in its lower portion, a shaft rotatably mounted on the hopper and extending downwardly therefrom, an agitator for the feed mounted on said shaft and operable in the hopper, and a fluid actuated motor mounted on and carried by the lower portion of the shaft for actuating same.

4. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening in its lower portion, a vertical shaft journaled in the hopper and extending downwardly therefrom adjacent to the opening, an agitator for the feed mounted on said shaft and operable in the hopper, and a wind turbine on the lower portion of the shaft for actuating same and supported thereby on the hopper.

5. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening in its lower portion, a vertical

3

shaft rotatable in the hopper and extending downwardly therefrom adjacent to the opening, an agitator for the feed fixed on said shaft and operable in the hopper, and a wind turbine mounted on the shaft and suspended thereby beneath the hopper, said turbine comprising horizontal arms on the lower portion of the shaft, and wind cups on said arms for rotating the shaft and the agitator.

6. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper including a bottom having a feed discharge opening therein, a vertical tubular bearing mounted in said bottom adjacent to the opening, a vertical shaft journaled at an intermediate point in the bearing and having its upper portion operable in the hopper, an agitator for the feed operable in the hopper and comprising a horizontal pin resting on the bearing for supporting the shaft therein, and a wind turbine on the lower portion of the shaft for actuating same.

7. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper having a feed discharge opening in its lower portion, a vertical shaft rotatably mounted in the hopper and depending therefrom, a centrifugal scatterer rotatably mounted on the lower portion of said shaft beneath the hopper for receiving the feed therefrom, and a wind turbine mounted on said lower portion of said shaft and carried thereby for actuating same.

8. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper hav-

4

ing a feed discharge opening in its lower portion, a vertical shaft rotatably mounted in the hopper and depending therefrom, an agitator for the feed mounted on said shaft and operable in the hopper, a rotary scatterer for the feed mounted on the shaft beneath the hopper for receiving the feed therefrom, and common wind actuated means mounted on the lower portion of the shaft and suspended thereby from the hopper for actuating the agitator and the scatterer.

9. A feeder comprising a hopper for mounting on a support and adapted to receive feed, said hopper including a bottom having a feed discharge opening therein, a vertical shaft rotatably mounted at an intermediate point in said bottom adjacent to the opening, a wind turbine on the lower portion of the shaft and suspended thereby from the hopper, and a centrifugal scatterer mounted on the turbine for rotation therewith and adapted to receive and scatter the feed from the hopper.

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