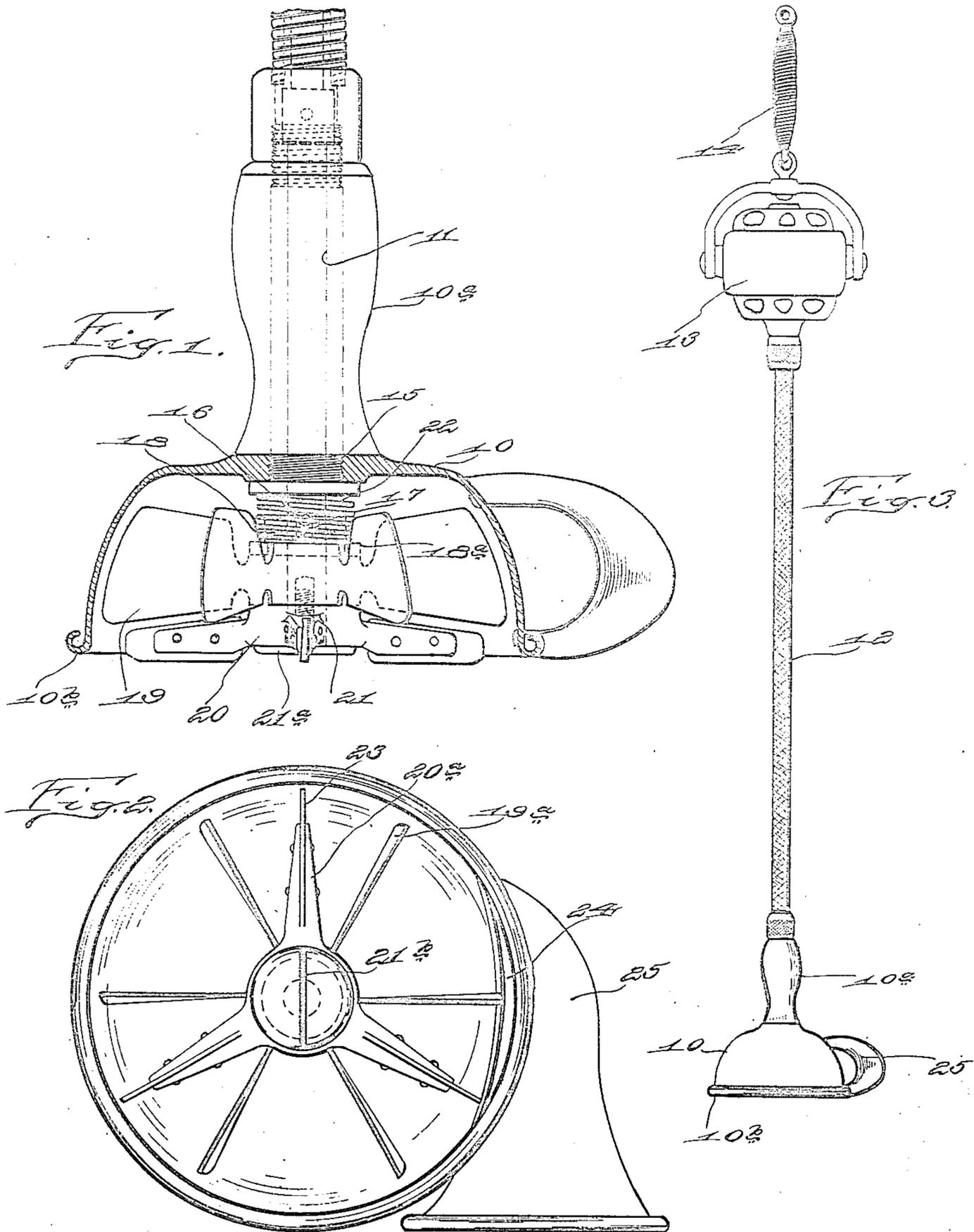


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C. F. BROWN ET AL.  
FISH SCALING APPARATUS.  
FILED JAN. 19, 1922.



INVENTORS.  
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# UNITED STATES PATENT OFFICE.

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## FISH-SCALING APPARATUS.

Application filed January 19, 1922. Serial No. 530,333.

*To all whom it may concern:*

Be it known that CHARLES FRANKLIN BROWN and RALPH L. TEDESCO, citizens of the United States, and residents of Weymouth, county of Norfolk, Commonwealth of Massachusetts, have invented an Improvement in Fish-Scaling Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts in each of the several views.

This invention relates to devices for removing scales from fish and has as its principal object the provision of a device capable of performing this work rapidly, easily, and effectively, the invention comprising means whereby the scales when removed are prevented from flying about. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description taken in connection with the accompanying drawings, and the distinctive features of novelty will be pointed out in the appended claims.

Referring to the drawings:

Fig. 1 is a view partly in elevation and partly in longitudinal section of a device embodying the invention;

Fig. 2 is an end view thereof; and

Fig. 3 is an elevation on a relatively smaller scale showing the device equipped with a power connection for driving the same.

10 indicates a shell constituting a housing for the operative elements of the device circular in cross-section, and of a depth to receive the scale removing head and the fan to be described. This shell is equipped with a handle 10<sup>a</sup> extending from the back thereof. This handle has a passage there-through to receive a driving shaft 11 which may have a suitable flexible shaft connection 12 from an electric motor 13, this typifying any suitable source of power and being, as shown suspended from a suitable overhead support by a spring 14. The inner end of the shaft 11 has bearing in a bushing 15 threaded into the back of the shell 10. The projecting extremity of this shaft is equipped with a lateral pin 16 engaging a slot 17 in a hub 18 which has rigid therewith, a fan 19 and a scale removing head 20. The hub 18 with the fan 19 and head 20 is thus permitted a limited sliding move-

ment on the projecting end portion of the shaft 11 while held to turn therewith by the engagement of the pin 16 in the slot 17. The outer end of the shaft 11 is tapped to receive a screw 21 having a head 21<sup>a</sup> that engages the outer side of the head 20 and limits the outward movement thereof. A compression spring 22 is mounted in position to press against a flange or washer 18<sup>a</sup> on the hub 18 and thus press the hub outward. The head 20 is equipped with a plurality of radial arms 20<sup>a</sup>, shown as three in number, and each having detachably secured thereto a scraping blade 23. The head 20 is held by the screw head 21<sup>a</sup> in position so that the blades 23 normally project a small distance outward from the edge of the shell 10, while capable of being pressed backward against the tension of the spring 22 which is relatively light, so that the scraping edges of the blades 23 will be substantially flush with the edge of the shell when pressed upon the body of a fish to be scaled. It may be here noted that while we prefer to use a spring such as the spring 22, to normally press the scaling head outward, this is not in all cases necessary, since the weight of the scaling head with its hub and the fan is often sufficient to apply the requisite pressure for effecting the scaling. With this construction it is possible to instantly and easily remove the scaling head 20 with its hub, by merely taking out the screw 21, this being desirable when the scraping blades 23 require renewal or attention, or when the interior of the shell with the operating devices therein need cleansing. The head 21<sup>a</sup> of this screw, lies somewhat within the plane of the scraping blade edges, so as not to interfere with the pressing thereof upon the surface to be scaled. The function of the fan 19 is to catch the scales as they are removed, and to create a suction or draught current of air to draw the scales upward into the shell. For this purpose the lower extremities of the blades are turned forwardly in the direction of rotation to a small extent as indicated at 19<sup>a</sup>. The shell 10 has an opening 24 of substantial size at one side thereof from which leads in an approximately tangential direction a discharge conduit or pipe 25 which may be more or less of a horn shape to facilitate the discharge of the scales there-through. The outer edge of the shell 10 is preferably turned up as indicated at 10<sup>b</sup> so

as to present a smooth rounded surface engaging the body of the fish. We are aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and we therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

15 1. Fish scaling apparatus comprising a housing shell equipped with a handle and with a power transmitting shaft extending thereinto, a scale removing head equipped with scraping blades borne at the end of  
20 said shaft within said shell, and means for catching and discharging the scales as they are removed by said head.

2. Fish scaling apparatus comprising a shell having a lateral discharge conduit, a  
25 scale removing head equipped with scraping blades and a fan associated therewith mounted and connected for operation in said shell.

3. Fish scaling apparatus comprising a housing shell having a handle extending  
30 therefrom and with a lateral conduit for the discharge of the scales, and power operated means embodying scraping members yield-

ingly mounted within the shell for removing scales and for directing them to discharge through said conduit. 35

4. Apparatus for removing scales from fish comprising a housing shell, and a scale removing head equipped with scraping blades yieldingly mounted and connected for rotation within said shell. 40

5. Apparatus for removing scales from fish comprising a housing shell, and a scale removing head equipped with scraping blades yieldingly mounted and connected for rotation within said shell, said shell having provision for directing the scales to a discharge outlet. 45

6. Apparatus for removing scales from fish, comprising a housing shell equipped with a handle, a power transmitting shaft extending through said handle into said shell, a scale removing head equipped with radially extending scraping blades yieldingly mounted within the shell and engaged with said shaft to be driven thereby, and a fan mounted in said shell also engaged with said shaft to be driven thereby, said shell having a lateral outlet for the discharge of the scales therethrough. 55

In testimony whereof, we have signed our names to this specification. 60

CHARLES FRANKLIN BROWN.  
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