

Nov. 15, 1927.

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J. J. BARRY

TRIMMING TOOL

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Fig. 1.

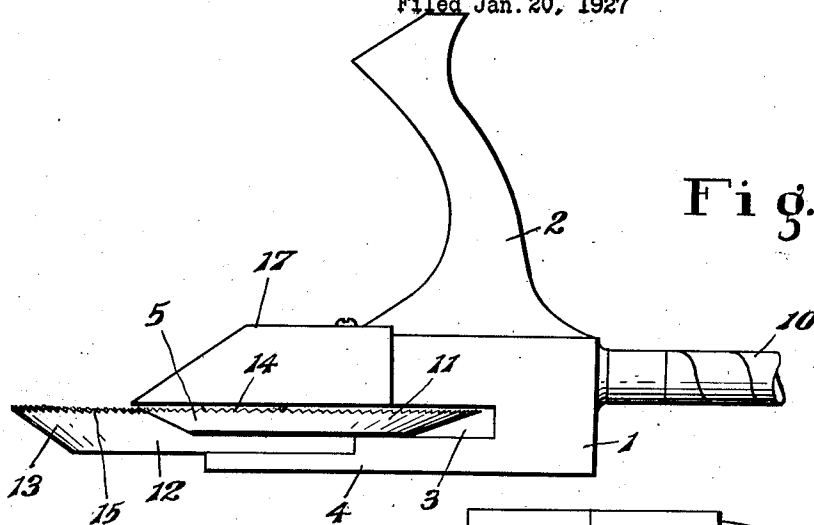
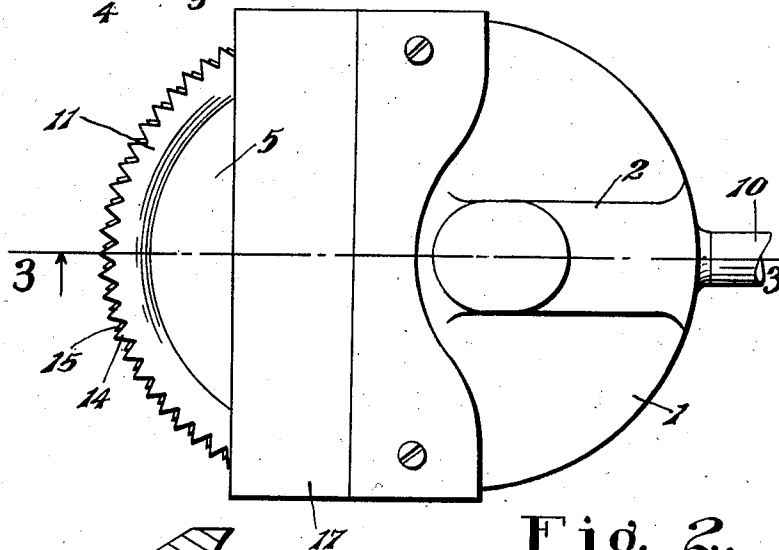
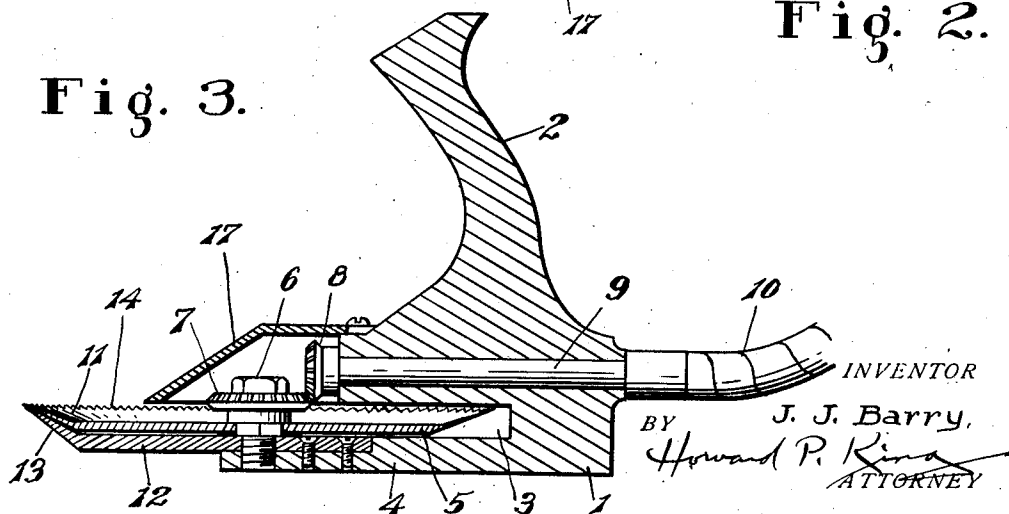


Fig. 2.

Fig. 3.



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TRIMMING TOOL.

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This invention relates to trimming tools, and more particularly to such tools which are power driven, and intended more especially for use in connection with trimming of fish.

The objects of the invention are to provide a device which will effectively and readily trim and debone fish; to provide a cutter of a cylindrical nature having a comparatively long radius; to employ a cutter of an actual size much smaller than the size required of a true cylinder of the radius employed; to provide a structure which may be conveniently held with the cutting portion of the blade or cutter in full view of the operator; to protect the portion of said blade not used while making a cut or trimming the fish; to provide a structure which is readily kept clean and sanitary; to obtain both a sawing and a cutting action; to secure simplicity of construction and operation, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawing in which like numerals of reference indicate similar parts throughout the several views;

Figure 1 is a side elevation of a trimming tool embodying my invention;

Figure 2 is a plan of the same; and

Figure 3 is a vertical sectional view on line 3—3 of Fig. 2.

In the specific embodiment of the invention illustrated in said drawing, the reference numeral 1 indicates the body portion or housing in general of the tool, which is comparatively flat and shown herein as substantially semicircular in plan, although any shape may be employed. An appropriate handle 2 is provided for manipulating the device, the handle herein being shown as similar to a saw handle and projecting upwardly from the top of the body portion. From the front edge of the body portion, the same is slotted inwardly crosswise of the body portion, thereby providing a rearwardly and transversely positioned slot 3 which is preferably open at both sides of said body portion as well as the front thereof. It may also be noted at this time, that the lower portion 4 of the body portion below said slot 3 extends further forward than the portion of said body portion above said slot.

A rotatable cutter or blade 5 is carried by the body portion with a segmental portion of said cutter or blade extending forwardly and exposed so as to enable the same to be effectively applied to the object, such as fish, which is to be cut or trimmed. As shown, the cutter is substantially flat at its middle part and positioned flatwise within said slot 3 with the forward segment projecting therefrom. Said cutter is rotatably secured in place by a stud 6 at its center which screws downwardly into the front extension of the lower portion 4 of the body portion. Rotatable with said cutter on the stud 6, is a bevel gear 7 which faces upwardly and is in mesh with another bevel gear 8 standing vertically at the front of the upper portion of the body portion and fast upon a shaft 9 which projects rearwardly through said body portion and is in turn connected to a flexible shaft 10 which may be driven from any suitable source of power, such as a motor, (not shown). The construction shown is such that a continuous rotation of said cutter 5 may be had.

Said cutter 5 is saucer-shape, that is, has its peripheral margin 11 sloped upwardly out of the plane of the middle portion of the cutter. This results in the margin of said blade being a cylinder of revolution, and in the construction shown herein, is frusto-conical, although I do not confine myself thereto. It is to be particularly pointed out, that the small segment of the cutter which is exposed for use in trimming or cutting the fish, and the portion of the cutter which actually effects the cut presents in effect a cylindrical cutting margin of a very considerable diameter. It is very desirable to have a large diameter to the cutting edge so as to obtain a slight gouge effect. This will enable the tool to be effectively operated to get under the back-bone of a fish and also cut immediately under the rib bones without cutting through the rib bones as occurs when a cylindrical cutter of small diameter is used. It is likewise to be noted that if a true cylinder were used for the cutter of a diameter equal to the effective diameter of the present cutter, such cylinder would be too large and clumsy to be handled and would likewise obscure the operator's view of the object being cut or trimmed.

Under the rotatable blade, is a fixed blade

12, the same preferably being a segmental portion of a disc having a turned up peripheral margin 13 at its curvilinear edge. Said fixed blade and the rotatable blade are preferably spaced slightly apart for the major portions thereof so as to avoid undue or unnecessary friction or rubbing, and contact only adjacent the cutting edges thereof. As shown, the rotatable blade preferably has saw teeth 14 at its cutting edge, and the fixed blade also has saw teeth 15 at its cutting edge. Furthermore, the teeth of the rotatable cutting member preferably extend slightly beyond the teeth of the fixed cutting member so as to obtain a sawing action as well as a cutting action when cooperating with the teeth of the fixed member. It should also be noted, that the construction is such that when the device is applied to an object, such as a fish, which is easily torn, that the rotatable member does not engage the portion of the fish being dressed except at the points of the teeth, the fixed blade resting against the fish and being slid by the operator along the fish as the cut is effected. The construction is thus one whereby a clean cut may be obtained and the fish not torn or otherwise injured by the tool.

In the drawings I have shown a guard 17 secured to the top of the body portion and extending forwardly to overlie the bevel gears and a portion of the cutters, so that only the necessary segmental portion of the cutters necessary to effect the cut will be exposed.

Obviously detail changes and modifications may be made in the construction and use of my improved trimming tool, and I do not wish to be understood as limiting myself to the exact structure shown except as set forth in the following claims when construed in the light of the prior art.

Having thus described the invention, I claim:—

1. A trimming tool having a rotatable cutter with an upturned peripheral margin, a fixed cutter adjacent thereto and also having an upturned curvilinear margin contiguous to the said upturned peripheral margin of the rotatable cutter.

2. A trimming tool having a rotatable cutter with an upturned peripheral margin, a fixed cutter adjacent thereto and also having an upturned curvilinear margin contiguous to the said upturned peripheral margin of the rotatable cutter, both of said upturned margins having a radius of curvature greater than the radius of the rotatable cutter.

3. A trimming tool having a rotatable cutter with an upturned peripheral margin, a fixed cutter below said rotatable cutter and extending substantially to the edge of said rotatable cutter contiguous thereto, thereby protecting said rotatable cutter against contact for its greater portion with the matter being trimmed.

4. A trimming tool comprising a relatively flat body portion having a slot from side to side and extending inwardly from the front, a fixed cutter extending forwardly from the front of said body portion at the lower side of said slot, and a rotatable cutter positioned partly in said slot and projecting forwardly therefrom contiguous to said fixed cutter.

5. A trimming tool having a relatively flat body portion with a lower portion projecting forwardly beyond the main body portion, a rotatable cutter carried by said projecting portion, a bevel gear rotatably fast with respect to said cutter and facing upwardly, and another bevel gear in mesh with the first mentioned gear and mounted at the front of the main body portion for driving the first-mentioned gear.

6. A trimming tool having a relatively flat body portion with a lower portion projecting forwardly beyond the main body portion, a rotatable cutter carried by said projecting portion, a bevel gear rotatably fast with respect to said cutter and facing upwardly, another bevel gear in mesh with the first mentioned gear and mounted at the front of the main body portion for driving the first-mentioned gear and a guard overlying said gears and a portion of said rotatable cutter so as to protect the same and expose only the necessary cutting portion of the cutter.

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