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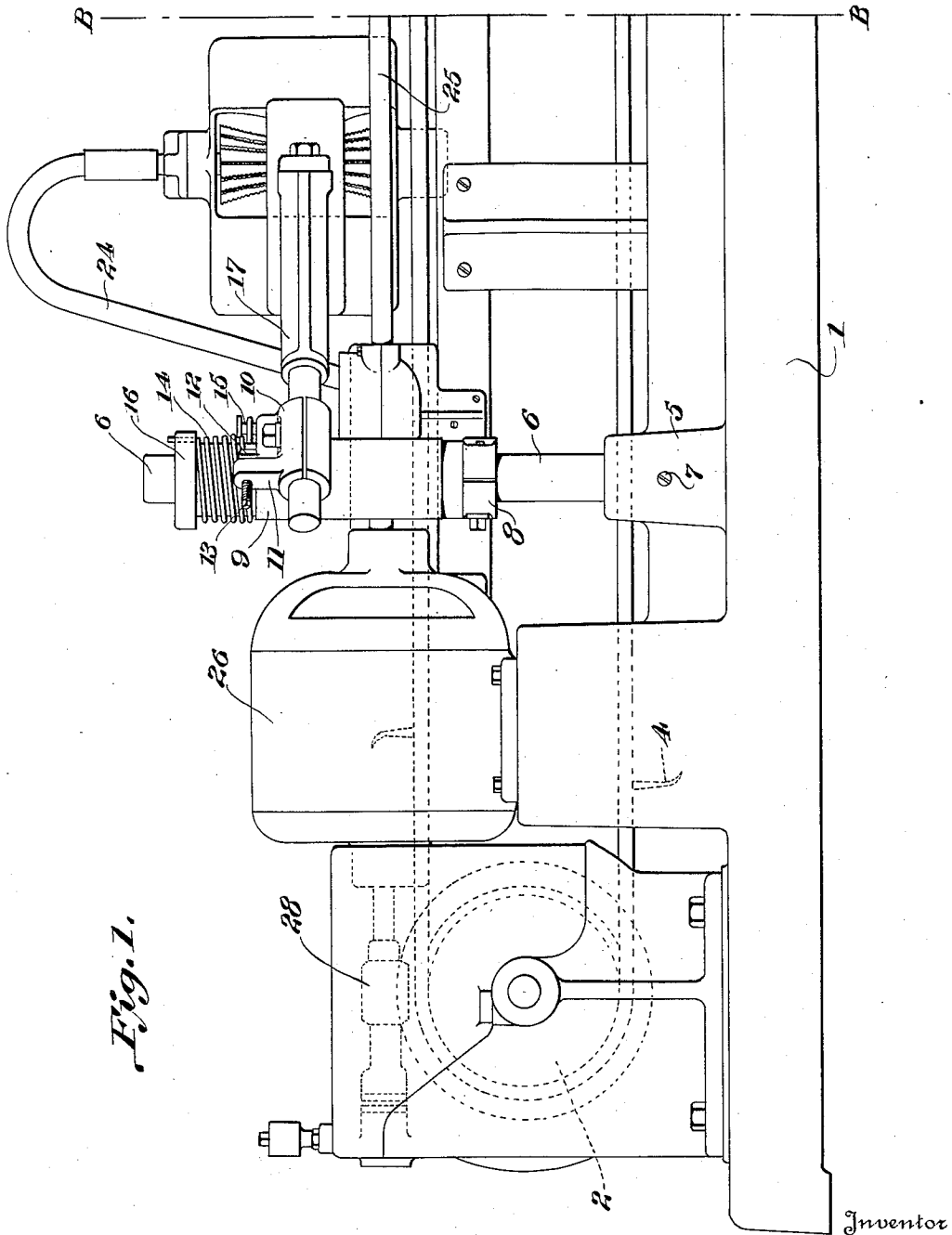
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J. J. BARRY

FISH SCALER

Filed Dec. 22, 1923

5 Sheets-Sheet 1



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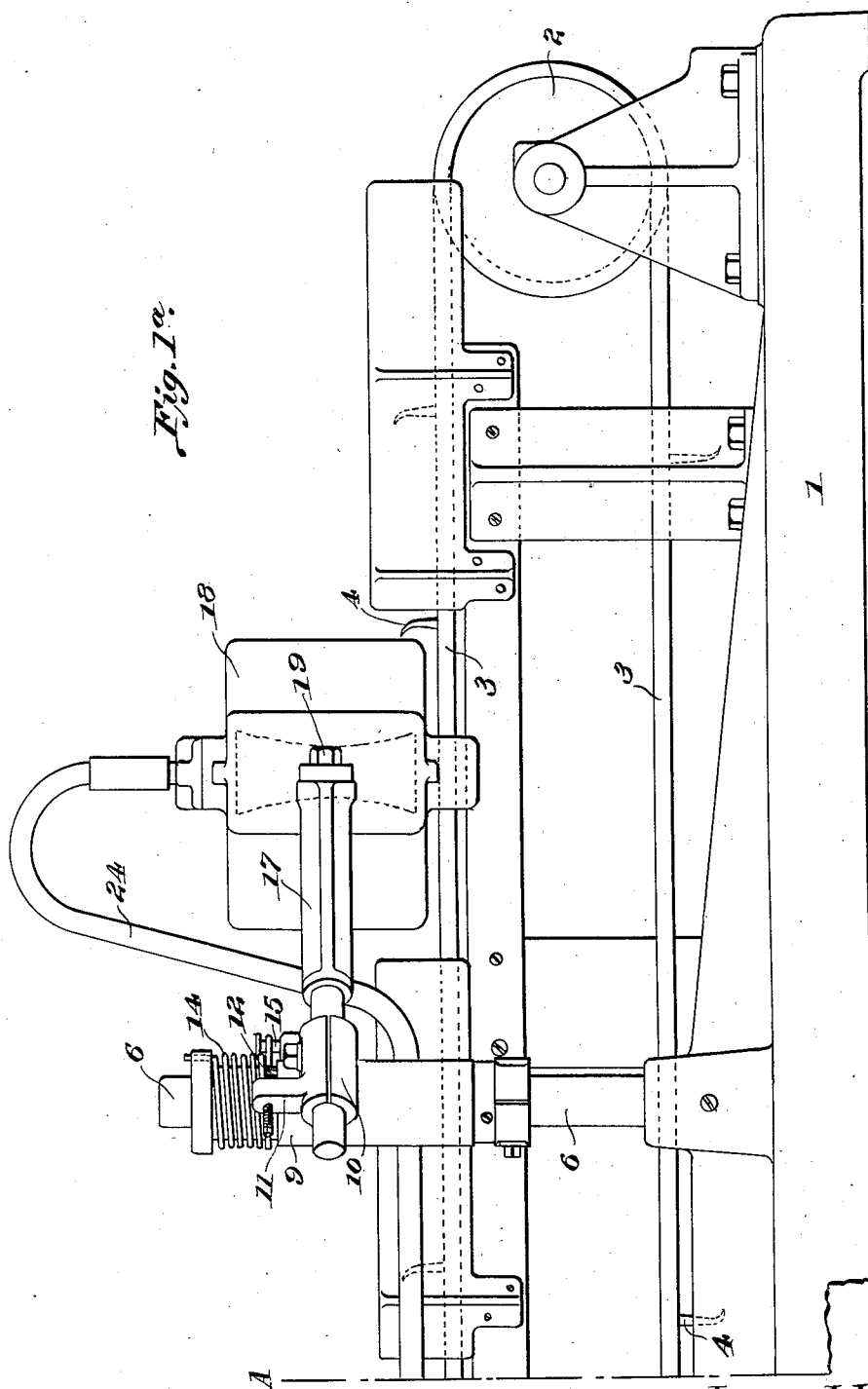
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5 Sheets-Sheet 2



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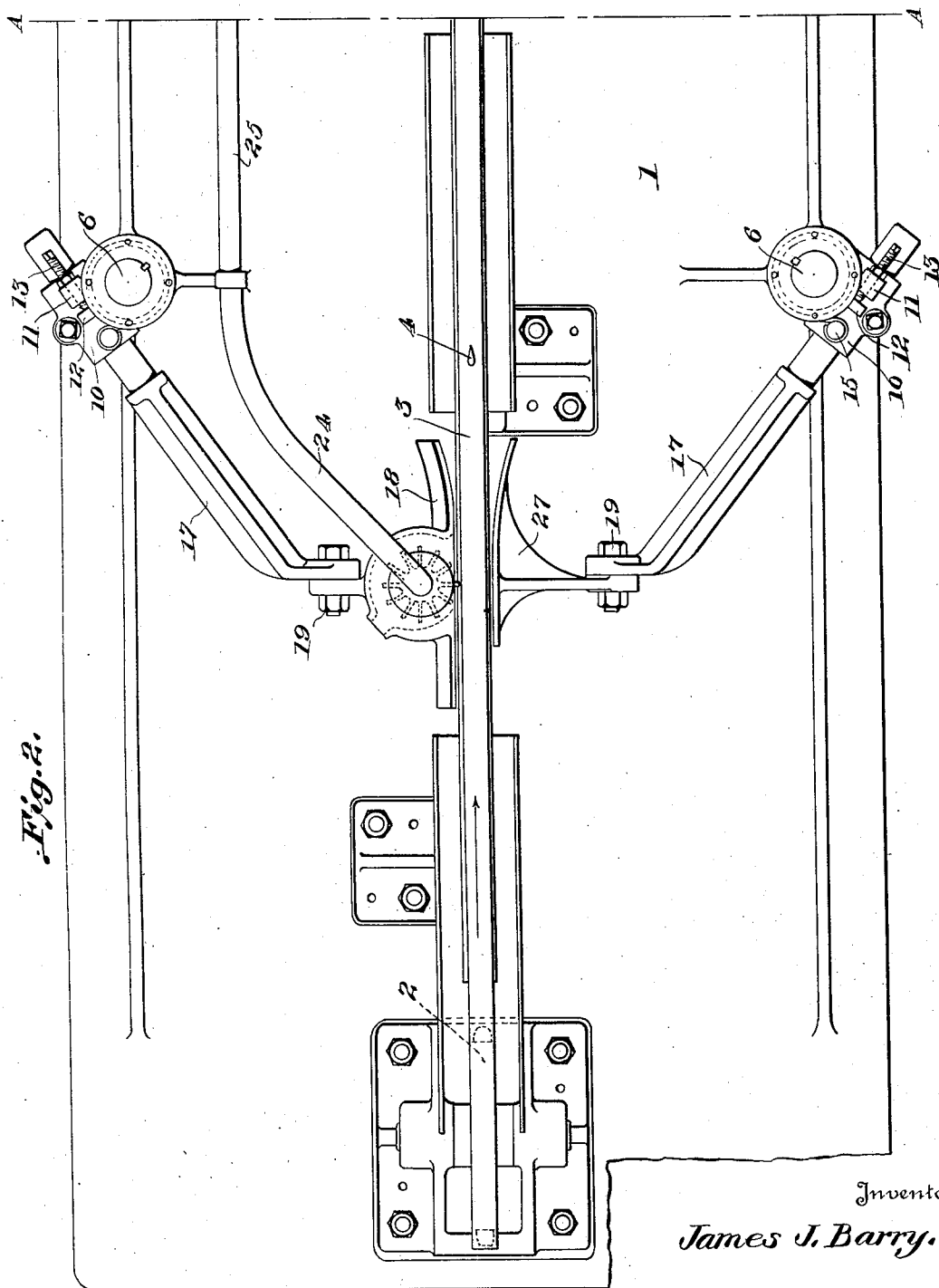
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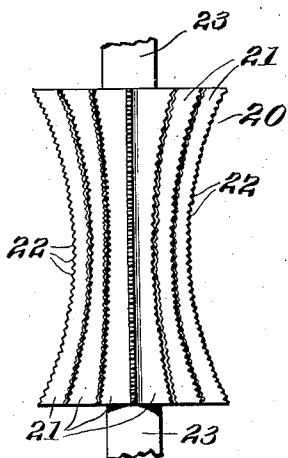
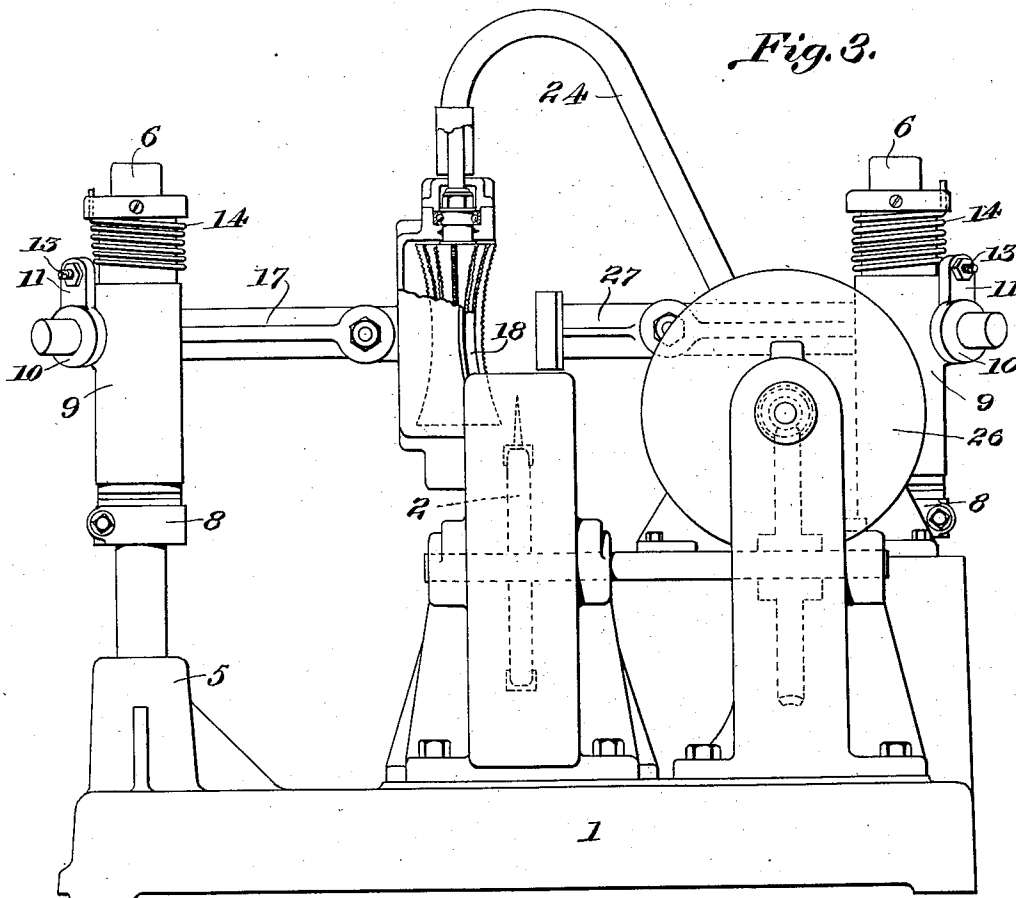
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5 Sheets-Sheet 5



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UNITED STATES PATENT OFFICE.

JAMES J. BARRY, OF NEW YORK, N. Y.

FISH SCALER.

Application filed December 22, 1923. Serial No. 682,245.

To all whom it may concern:

Be it known that I, JAMES J. BARRY, a citizen of the United States, residing at New York, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Fish Scalers; and I 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 a machine for scaling fish and more particularly to a device of this character adapted to adjust itself to varying sizes and shapes of fish to permit of a nearly automatic operation of the device.

The objects of the present invention are to provide a device of the character indicated of an improved and simplified structure, by means of which fish may be fed continuously to the scaling mechanism and successively scaled on opposite sides, means being provided for applying suitable tension to the scaling device to thoroughly scale the fish, but not tear the same. Further objects will more particularly appear in the course of the following detailed description.

The invention consists in the novel construction, arrangement and combinations of parts, as hereinafter more particularly described and claimed.

Five sheets of drawings accompany this specification as part thereof in which like reference characters indicate like parts throughout.

Figs. 1 and 1^a in association represent the improved device in side elevation.

Figs. 2 and 2^a represent in association the improved device in plan.

Fig. 3 is an end elevation.

Fig. 4 is a detailed view of the scaling tool.

Upon a suitable base frame 1 of a general rectangular shape are mounted adjacent each end pulleys 2—2, upon which is mounted a conveying belt 3 extending horizontally and longitudinally of the base. Secured at spaced intervals to the conveyor belt 3 and outwardly directed are prongs 4, upon which the fish to be scaled are to be impaled.

Mounted in sockets 5 integral with base 1 and positioned adjacent the sides of conveyor belt 3 are two pairs of posts 6, extending vertically and on opposite sides of the conveyor belt. The posts 6 are preferably ad-

justably secured in sockets 5 as by set screws 7.

Upon each post 6 is provided an adjustable bearing collar 8, above which is rotatably mounted a sleeve 9 provided with a tangential bracket 10. A spiral spring 13 is positioned over post 6 and above sleeve 9, while a second collar 16 is secured to post 6 above coil 13, the ends of spring 13 being secured respectively to collar 16 and to a stud 15 provided on sleeve 9 whereby spring 13 tends normally to rotate sleeve 9. The bracket 10 is provided with a shoulder 11 in which is provided an adjustment screw 13 adapted to contact with a stop shoulder 12 carried by post 6 to limit the rotation of sleeve 9.

An arm 17 is adjustably mounted in each bracket 10 extending inwardly toward the conveyor belt and at an acute angle thereto.

Upon one arm 17 of each pair is mounted a scaling tool 18 and upon the opposite arm is mounted a pressure foot 27, these parts being removably secured to arms 17, as by bolt 19.

Each scaling tool 18 consists of a cylindrical member 20 of concave form provided with a plurality of spaced radially disposed scraper members 21 having their outer edges toothed as at 22, the member 20 being mounted upon a spindle 23 adapted to be connected as by flexible shaft 24 to the source of power.

It will be observed that the structure thus far enumerated and as clearly shown in Figs. 2—2^a provides two pairs of oppositely disposed arms 17—17 pivotally mounted on opposite sides of the conveyor belt 3 and directed inwardly and toward the conveyor belt so that they tend to converge at an acute angle thereto.

Furthermore that upon one arm 17 of each pair is mounted a rotary scaling tool 18, while upon the other arm and opposed thereto is a pressure foot 27 adapted to press the fish against the scaling tool, both of the arms 17 being directed inwardly under tension of spring 13 toward the belt and fish. It will further be noted that the scaling tool in association with one pair of arms is provided upon one side of the belt while the scaling tool in association with the other pair of arms is upon the opposite side of the belt.

A motor such as 26 is suitably mounted upon base 1 and has its shaft connected to

the flexible driving shafts 24 for the scaling tools by means of suitable gearing 29. Suitable gearing 28 is provided upon the opposite end of the motor shaft to rotate one
5 of the pulleys 2 and thus convey motion to the endless conveyor belt 3.

Various modifications in construction and arrangement of the parts will readily suggest themselves to those skilled in the art,
10 but within the scope of the present invention as claimed.

Having thus described my invention I claim:

1. A fish scaling machine comprising in
15 combination a conveyor, vertical posts positioned on opposite sides of the conveyor, horizontal arms rotatably mounted upon said posts, tension means adapted to force said arms toward the conveyor, a pressure
20 foot carried by one of said arms, and a scaling tool carried by the other arm.

2. A fish scaling machine comprising in combination a conveyor, pivoted arms extending inwardly toward and at an acute
25 angle with the conveyor, a scaling tool upon one arm and a pressure foot upon the other.

3. A fish scaling machine comprising in combination a conveyor, pivoted arms ar-

ranged in pairs to converge toward and over the conveyor and at an acute angle therewith, means for forcing said arms inwardly and toward the conveyor, a scaling tool mounted upon one arm of each pair and a pressure foot mounted upon the other arm.

4. A fish scaling machine comprising in
35 combination a conveyor, two rotary scaling tools mounted in spaced relation and upon opposite sides of the conveyor, a pressure foot opposed to each of the scaling tools, each scaling tool and its pressure foot being
40 mounted upon outwardly directed pivotally mounted arms, tension means for each arm to force the same inwardly toward the conveyor, and means for operating the conveyor and rotating the scaling tools.

5. In a fish scaling machine comprising a conveyor and a plurality of rotary scaling tools, common means for operating the conveyor and the scaling tools comprising a motor having one end of its shaft geared to
50 the conveying mechanism and the other end of the shaft geared to the rotary scaling tools.

In testimony whereof I affix my signature.

JAMES J. BARRY.