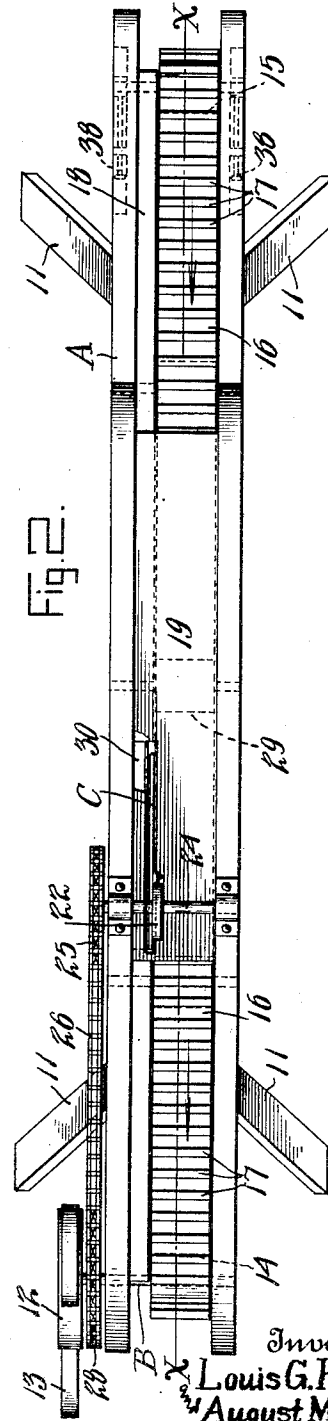
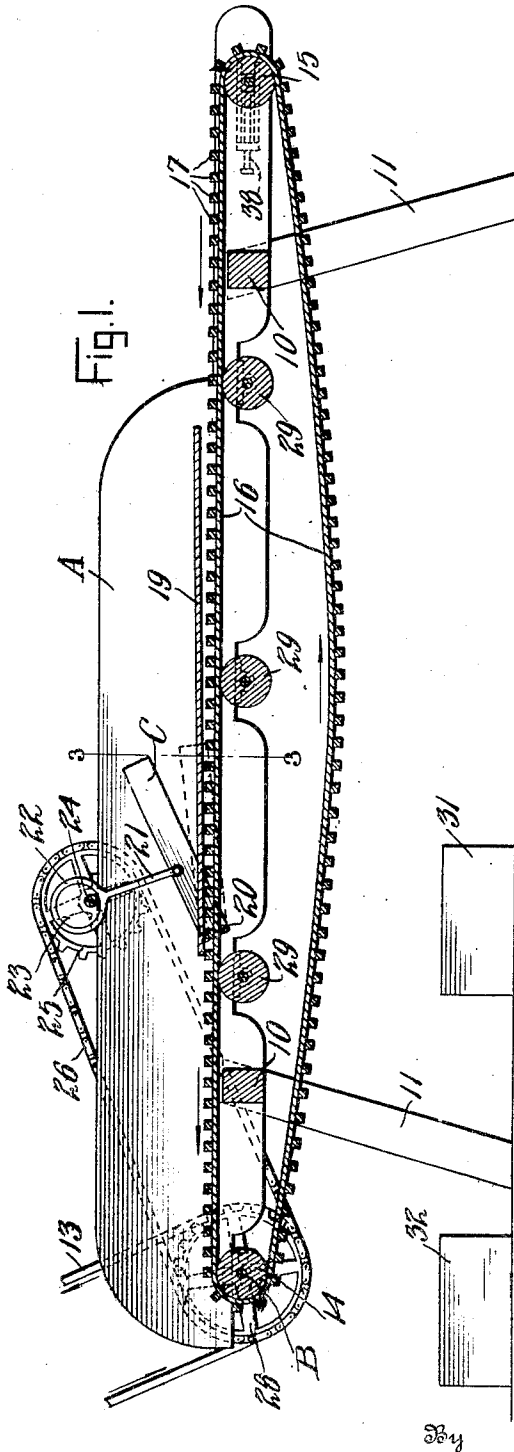


L. G. HIRTH AND A. MATTON.
MACHINE FOR DEHEADING SHRIMPS.
APPLICATION FILED APR. 11, 1919.

1,367,546.

Patented Feb. 8, 1921.

2 SHEETS—SHEET 1.



Inventors

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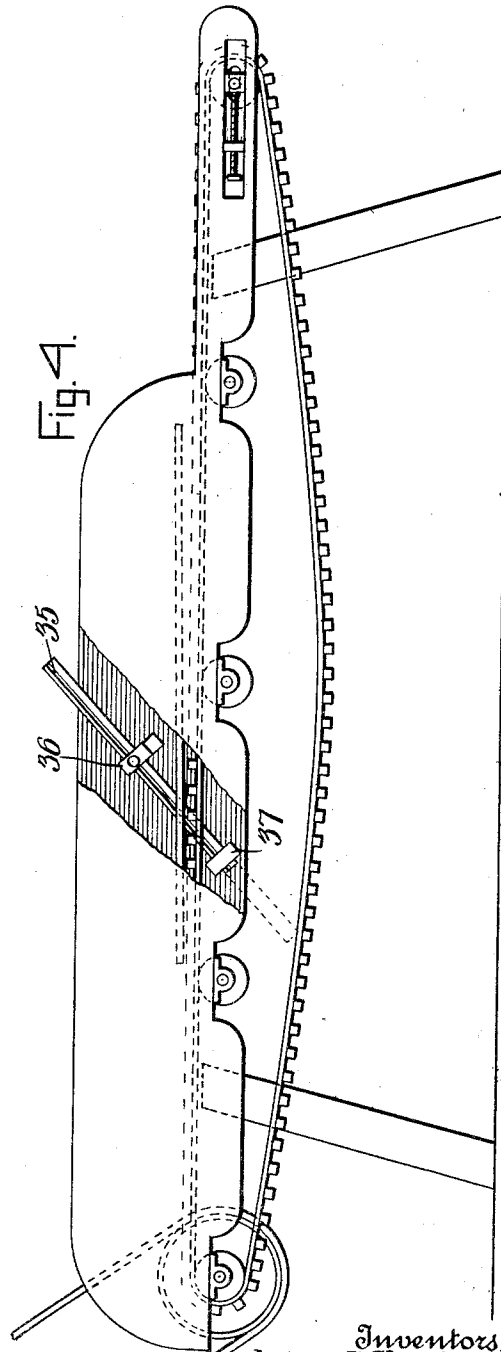
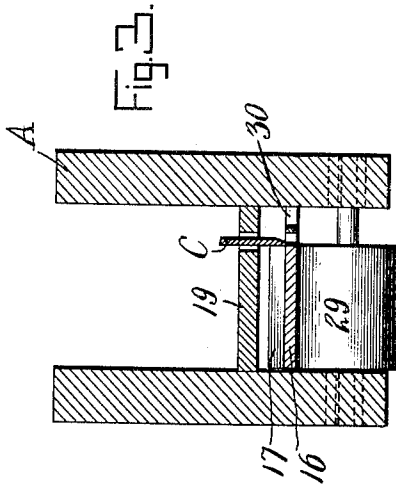
Wm. Bradford—Attorney

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2 SHEETS—SHEET 2.



By

Inventors.
Louis G. Hirth
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UNITED STATES PATENT OFFICE.

LOUIS G. HIRTH AND AUGUST MATTON, OF FERNANDINA, FLORIDA; SAID MATTON
ASSIGNOR TO SAID HIRTH.

MACHINE FOR DEHEADING SHRIMPS.

1,367,546.

Specification of Letters Patent.

Patented Feb. 8, 1921.

Application filed April 11, 1919. Serial No. 289,424.

To all whom it may concern:

Be it known that we, LOUIS G. HIRTH and AUGUST MATTON, citizens of the United States, residing at Fernandina, in the county of Nassau and State of Florida, have invented certain new and useful Improvements in Machines for Deheading Shrimps, of which the following is a specification.

Our said invention relates to an apparatus for de-heading shrimps, etc., and it consists in various improvements in the details of construction and arrangement of parts whereby a machine is provided for the purpose that is comparatively simple in construction and very effective in operation, enabling the work to be done with great rapidity, all as will be more fully hereinafter described and claimed.

Referring to the accompanying drawings which are made a part hereof, and on which similar reference characters indicate similar parts:

Figure 1 is a longitudinal section of a shrimp de-heading machine constructed in accordance with our said invention,

Fig. 2 a top or plan view of said machine,

Fig. 3 a cross section on the dotted line 3-3 in Fig. 1, and

Fig. 4 a side elevation showing a modified construction.

In said drawings the portions marked A represent the frame, B the driving shaft, and C the cutter or de-heading knife.

The frame consists of appropriate side bars connected by cross members 10 and supported upon legs 11.

The shaft B is mounted in appropriate bearings on the under-side of the side bars A, and has a belt pulley 12 connected by a belt 13 to any source of power. Said shaft also carries a carrier supporting roller 14, and a similar roller 15 is mounted on a shaft in bearings supported by adjustable boxes at the other end of said bars A. Screw-rods 38 are provided for adjusting the longitudinal position of said roller 15 in relation to the roller 14, of a common form and arrangement. Mounted on said rollers 14 and 15 is an endless belt, or apron carrier 16, carrying on its outer surface a series of cross members or slats 17 spaced a distance apart to hold a shrimp between each adjacent pair. Adjacent to the edge of the belt 16 and in the same plane with its upper

surface, is a run-board 18 on which the heads of the shrimps are adapted to normally rest. A narrow space is provided between said belt and said run-board through which the de-heading knife may operate.

Above the upper edges of the slats 17 is mounted a board 19 positioned slightly inclined from a point somewhat distant from the knife C to a point slightly beyond where said knife operates, the outer end being elevated and the end adjacent to the knife being substantially even with the tops of the cross slats 17.

The knife C is mounted to reciprocate on a pivot 20 and is connected to be operated by a pitman 21 and eccentric ring 22, mounted on an eccentric 23 on a shaft 24, which is journaled in bearings on the upper edge of the sides A just above the position of knife C. On the outer end of shaft 24 is mounted a sprocket wheel 25, connected by sprocket chain 26 to another sprocket wheel 28 on shaft 8, for driving said shaft 24.

A series of rollers 29 journaled in appropriate bearings on side bars A are interposed between rollers 14 and 15 at appropriate intervals to afford the needed support to the endless carrier 16.

An opening 30 is formed in the run-board 18 beneath the edge of knife C through which the shrimp heads may fall into a receptacle 31 beneath as they are severed from the bodies by the action of said knife. The bodies are carried along in the compartments between the slats 17 until they reach the end where the belt passes over roller 14, which at this point opens the space between said bars 17 and permits the bodies to fall into a receptacle 32 beneath.

In Fig. 4, we have shown a structure the same as that just described in most details, except that instead of a reciprocating knife and a means for operating it, we have mounted a knife 35 in a fixed angular position by means of supporting brackets 36 and 37, so that the forward movement of the carrier belt will drive the necks of the shrimps against the sharp inclined edge of the stationary knife and cause them to be severed from the bodies by a shearing action instead of by the reciprocating action of the knife.

We have described the machine as a shrimp de-header, for which purpose it is primarily designed, but it will also be under-

stood to be equally serviceable in de-heading spawn and other like things, or even fish where such an operation may be desired.

The operation of the machine will be readily understood from the foregoing description, and need not be more than briefly recapitulated. The operator, standing at the end of the machine adjacent to roller 15, places the shrimps in the compartments between the slats 17 with their heads projecting over onto the run-board 18. The shrimps so placed are carried under the board 19 and by it are held firmly to the belt 16 and when they approach the knife C, which is constantly reciprocating up and down, the heads are severed from the bodies and drop through the opening 30 into the receptacle 31, and the bodies pass along and are deposited in receptacle 32 as above described.

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

1. A machine for de-heading shrimp comprising, a frame, an endless belt carried by the frame, a run-board adjacent the belt, a knife carried by the frame and operable between the apron and the belt and a board positioned above the belt and run-board and extending the width of the belt and the run-board for holding the shrimp during the cutting.

2. A machine for de-heading shrimp comprising, a frame, an endless belt carried by the frame, a run-board adjacent the belt, a knife carried by the frame and operable between the apron and the belt and a board positioned above the belt and run-board and

extending the width of the belt and the run-board for holding the shrimp during the cutting, said board having a slit through which the knife may operate.

3. A machine for de-heading shrimp comprising, a frame, an endless belt carried by the frame, a run-board adjacent the belt, a knife pivoted to the frame and adapted to reciprocate between the belt and the run-board, means to operate the knife, a board positioned above the belt and run-board and extending the width of the belt and the run-board for holding the shrimp in place during the cutting, said board having a slit through which the knife may operate.

4. A machine for de-heading shrimp comprising, a frame, an endless belt carried by the frame, a run-board adjacent the belt, a knife carried by the frame and operable between the apron and the belt, side bars carried by the frame beside the outer edge of the belt and the outer edge of the run-board respectively, a board above the run-board and belt extending at either side to the side bars to form a housing therewith for holding the shrimp during the de-heading, said board having a slit through which the knife is adapted to operate.

In witness whereof, we have hereunto set our hands and seals at Fernandina, Florida, this 8th day of April, A. D. nineteen hundred and nineteen.

LOUIS G. HIRTH. [L. S.]
AUGUST MATTON. [L. S.]

Witnesses:

J. B. STEWART,
A. S. ALLAN.