

[54] OYSTER BRAKER

[76] Inventors: Charles D. Briddell, 335 Hill-N-Dale Dr., York, Pa. 17403; John W. Thompson, Box 356 R.D. No. 1, Mount Wolf, Pa. 17347

[22] Filed: Oct. 13, 1972

[21] Appl. No.: 297,346

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 267,010, June 28, 1972, abandoned.

[52] U.S. Cl. 17/74

[51] Int. Cl. A22c 29/00

[58] Field of Search 17/74, 76, 53, 48

[56] References Cited

UNITED STATES PATENTS

2,299,311 10/1942 Dickerson 17/74

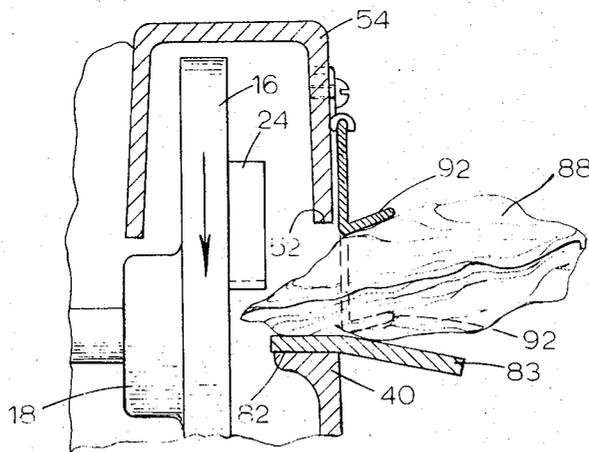
3,206,796 9/1965 Smith 17/74
3,206,797 9/1965 Smith 17/74

Primary Examiner—Hugh R. Chamblee
Attorney, Agent, or Firm—C. Hercus Just

[57] ABSTRACT

An oyster breaker to break a portion of the shell of the lip end of an oyster therefrom by power-operating means to form an opening in the shell through which a knife may be inserted to sever the abductor muscle of the oyster from the shell thereof. Cooperating shearing means quickly effect the removal of said portion of the shell while an operator positions the oyster therewith by one hand while holding the knife in the other hand for immediate insertion into the opening formed by said shearing means.

11 Claims, 12 Drawing Figures



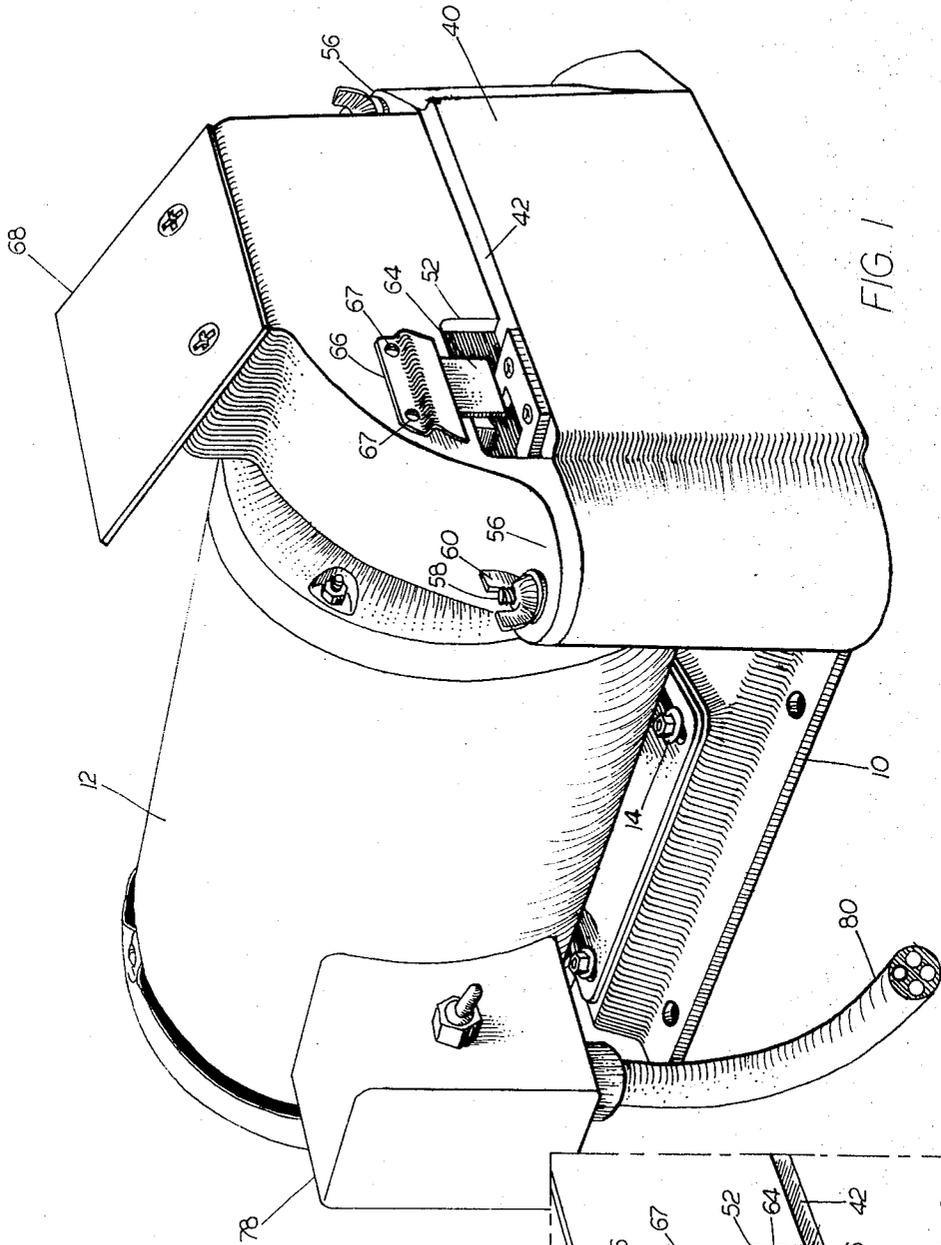


FIG. 1

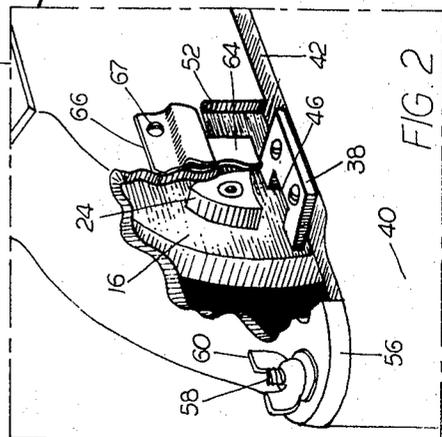


FIG. 2

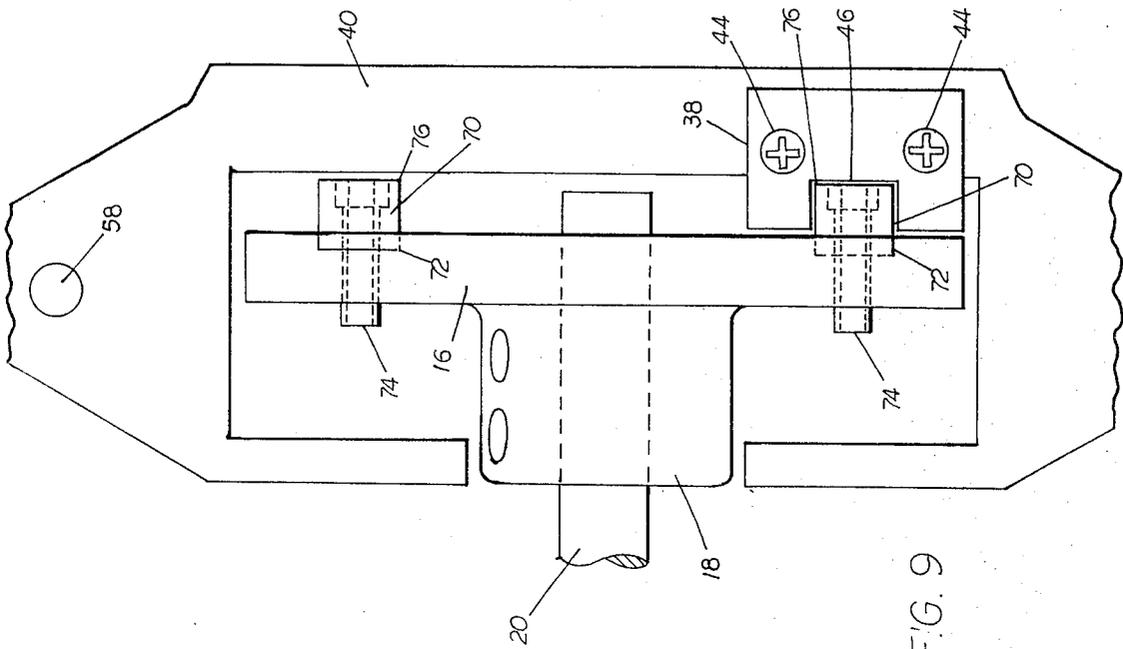


FIG. 9

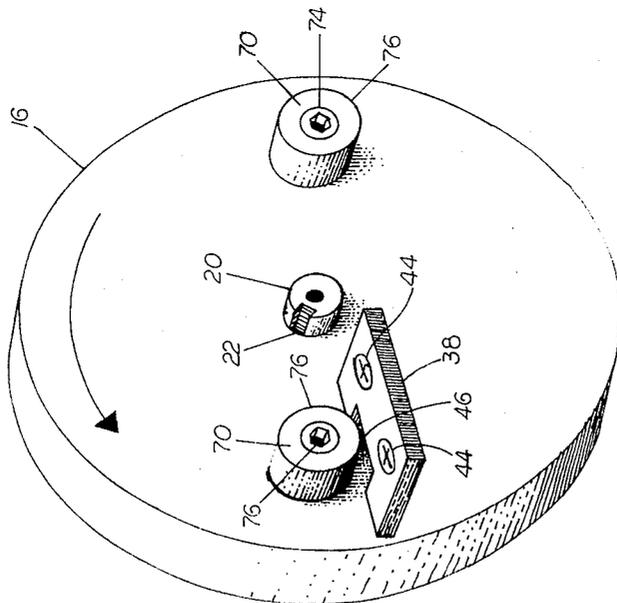


FIG. 8

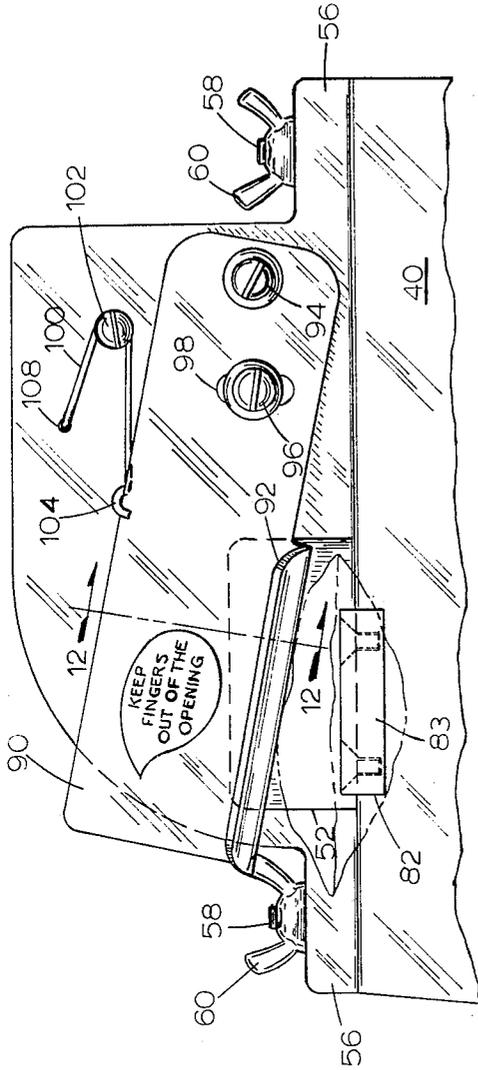


FIG. 11

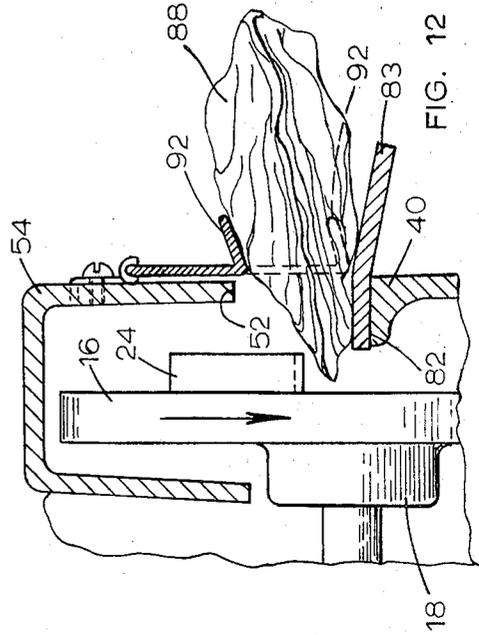


FIG. 12

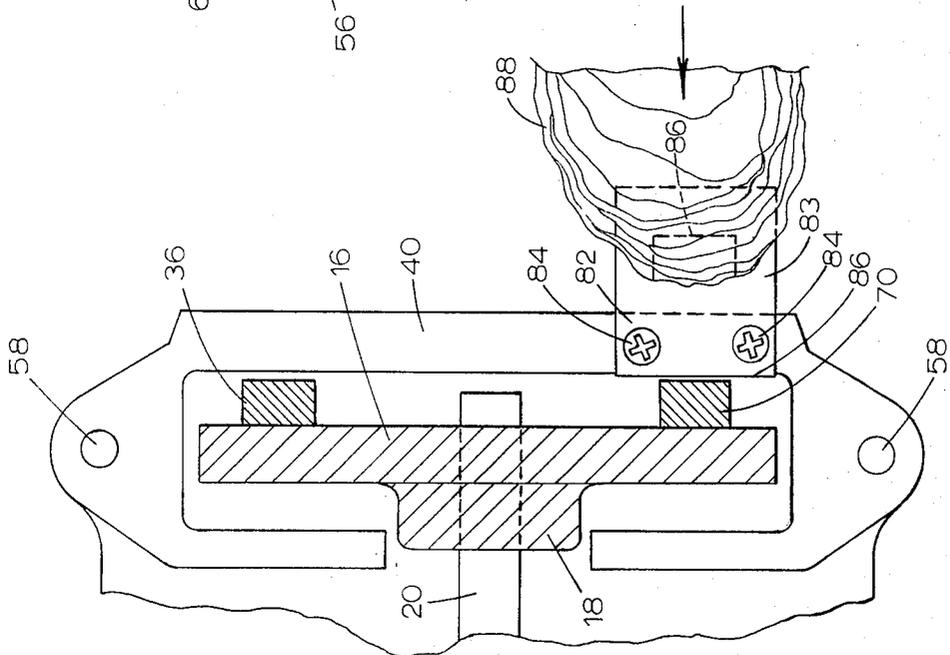


FIG. 10

OYSTER BRAKER

This application is a Continuation-In-Part of application Ser No. 267,010 filed June 28, 1972 now abandoned.

BACKGROUND OF THE INVENTION

Opening oyster shells to obtain the meat therefrom is a difficult operation. This primarily is due to the fact that no two oyster shells are identical. The line of separation between the two shells is very indistinct and even an experienced operator normally has some difficulty in determining the line of separation between the shells for purposes of inserting an oyster knife between the two shells in order to sever the abductor muscle, first from one shell and then from the other for removal of the meat. It is well-known that many oysters shuckers, particularly those of relatively long experience, have been subjected to many injuries which result in crippling of certain fingers by accidental cutting and incising of the operator's fingers and hand, due to the knife slipping from the oyster. During such operation, it is necessary to exert considerable force to insert the knife between the two oyster shells while firmly holding the knife in one hand and the oyster in the other.

To facilitate the opening of oysters, it has been rather common practice of certain oyster shuckers to dispose the lip or mouth end of an unopened oyster upon a chisel-shaped blade extending vertically from a shucking table and then strike the overhanging edge of the oyster with a hammer or similar tool to form an opening through which the oyster knife may be inserted to sever said abductor muscle from the shell and effect the opening of the oyster to remove the meat therefrom. Such an operation obviously consumes a certain amount of time to hold the oyster against the chisel-shaped blade, strike the end of the oyster with a hammer, put down the hammer and pick up an oyster knife to complete the opening of the oyster. Opening the next oyster requires a repetition of the same step routine of operations. One slight variation to the foregoing operation has been to use a steel handle on the shucking knife for a hammer to strike off the projecting end of the lip of the oyster while held against the chisel-shaped blade referred to above. However, time is wasted in turning the knife around in the hand which holds it in order to expose the blade and insert the same into the oyster through the opening formed in the shell.

Heretofore, a few attempts have been made to facilitate or at least partially mechanize the opening of mollusks but such attempts primarily have been confined to devices operable upon clams and mollusks of the clam family which, because of the somewhat regular formation of the shell thereof, are not as difficult to position in a device in which a shell-opening blade or member is employed to be inserted between the shells of the mollusks. Thus, the very irregular configuration of a general run of oyster shells presents a problem incident to effecting mechanized opening of the oysters which is not found in other mollusks having regular configuration of shells.

In recent years, a motor driven oyster breaking machine has been developed which comprises the subject matter of Pat. No. 3206,796, dated Sept. 21, 1965, in the name of R. V. Smith, Jr.. Said machine includes rotary cutter means comprising a plurality of level-

headed bolts which operate relative to a vertical anvil-like blade to form a notch in the lip end of an oyster. This type of rotary cutter appears not only to require substantial maintenance but, more importantly, the insertion of an oyster through a vertical slot is an awkward movement for an oyster shucker who, from long practice, is used to handling an oyster in a horizontal position to open the shell. In so doing, the natural oyster liquor is substantially preserved, when desired, while if the oyster is opened while vertical, the liquor will be lost.

The opening of oysters, however, is facilitated and the time consumed in accomplishing the same is greatly shortened by use of an oyster breaker embodying the principles of the present invention which, while still necessitating manual operation to a limited extent, nevertheless, employs power-operated means to greatly expedite the time required to open the oysters as compared with the time consumed in opening the same by methods presently employed in the oyster industry. Details of the improved oyster breaker and the method of utilizing the same are set forth below.

SUMMARY OF THE INVENTION

The principal purpose of the present invention is to provide an oyster breaker which is power-operated and adapted to remove a portion of the shell of an oyster, preferably at the lip or mouth end to form an opening within which an oyster or shucking knife readily may be inserted to sever the abductor muscle from both of the shells quickly without requiring the exertion of normal tiring effort or subjecting the operator to the danger of injury to the hand which holds the oyster in manual shucking operation.

It is another object of the invention to provide such power-operated mechanism with respect to which an operator may, with one hand, hold an oyster with the lip end thereof within an opening in said machine for instantaneously forming a notch-like opening in the lip end of the shells while holding an oyster shucking knife in the other hand ready for immediate use to insert the blade within the opening in the shell formed by said machine, whereby the separated meat of the oyster may be deposited in a suitable receptacle and shells discarded, followed by the operator picking up another oyster from the shucking bench and repeating the foregoing procedure.

It is a further object of the invention to provide a power-operated oyster breaker in which a rotatable, disc-like member is provided with at least one projection on one surface thereof for cooperation with a stationary anvil supported at one edge of an opening in the housing of the machine, said opening receiving the lip end of an oyster for engagement of the same by the projection to form said aforementioned opening in the shell for the insertion of a shucking knife therethrough, the anvil preferably having a shearing edge which is complementary to a shearing edge on the projection which is revolved by said disc-like member.

It is still another object of the invention ancillary to the foregoing object to provide said rotatable disc-like member with at least a pair of projections diametrically located with respect to each other to effect balance of the member while rotated by an electric motor, said disc-like member also serving to produce a flywheel effect and thereby minimizing the imparting of shock to the motor resulting from the impact of the movable

shearing member with the lip of an oyster supported by the stationary shearing member or anvil.

Still another object of the invention is to provide removable sections in the housing by which access to the rotatable member of the breaker is easily obtained and, further, means are provided for readily discharging by gravity shell fragments removed from the lip end of oysters, for example, incident to forming said opening herein to facilitate the severing of the abductor muscle from the shells of the oysters.

In general, it is a still further object of the invention to provide an oyster breaker which obviates the most arduous and dangerous part of the operation of shucking oysters by replacing the same with power-operated means to form an opening in the lip end of the oyster instantaneously, whereby it now is conceivable that unskilled men and women, who have not had previous oyster shucking experience, may be quickly trained and employed in the oyster industry.

Details of the foregoing objects and of the invention, as well as other objects thereof, are set forth in the following specification and illustrated in the accompanying drawings comprising a part thereof.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an oyster breaker employing the principles of the present invention.

FIG. 2 is a fragmentary portion of the oyster breaker shown in FIG. 1, part of the housing thereof being broken away to illustrate details of the cooperating shell-breaking members of the mechanism.

FIG. 3 is a perspective view, somewhat diagrammatic in illustration, showing the movable shell-breaking member in operative position with respect to the stationary shell-breaking member and also showing an oyster which has had a portion of the lip end of the shell broken therefrom by said mechanism.

FIG. 4 is a fragmentary side elevation showing the mechanism in FIG. 3 in side view with an oyster shown in position about to be engaged by the movable shell-breaking member, part of the housing being shown in said figure in fragmentary manner.

FIG. 5 is a fragmentary top plan view of the part of the mechanism shown in FIG. 4, but in which the upper portion of the housing has been removed to provide access to the movable shell-breaking member, a portion of an oyster shell from which part of the lip portion has been removed also being illustrated in said figure.

FIG. 6 is a fragmentary vertical sectional view taken generally on the line 6—6 of FIG. 3 to illustrate one embodiment of details of the movable shell-breaking member.

FIG. 7 is a sectional view of the details shown in FIG. 6 as seen on the line 7—7 thereof.

FIG. 8 is a view similar to FIG. 3, but showing a different embodiment of breaking projections on the movable shell-breaking member of the mechanism.

FIG. 9 is a view similar to FIG. 5, but showing the mechanism with the movable shell-breaking member of FIG. 8 employed therein.

FIG. 10 is a view similar to FIG. 5 but showing another embodiment of anvil blade from that shown in the preceding figures.

FIG. 11 is a fragmentary end view of the operative end of the oyster breaker upon which another embodiment of guard is shown from that shown in FIGS. 1, 2 and 4.

FIG. 12 is a fragmentary vertical sectional view of the structure shown in FIG. 11, as seen on the line 12—12 thereof.

DETAILED DESCRIPTION

Referring to FIG. 1, the oyster breaker embodying the principles of the present invention preferably has a base casting 10 upon which a partially cylindrical shell 12 is positioned and is connected thereto by suitable threaded means 14. The shell 12 contains an electric motor of suitable size and power to rotate the movable shell-breaking member 16 which has a hub 18 thereon which is mounted upon one end of shaft 20 of the electric motor and to which shaft the movable member 16 is rendered non-rotatable by a suitable key means 22.

The movable shell-breaking member 16 will be seen to be preferably in the form of a disc. Also, the same has adequate mass to serve as a flywheel and thereby minimize the imposition of shock upon the motor when a shell-breaking function is performed by said movable member in the manner described hereinafter. Preferably, the member 16 is formed from metal. Due to the fact that during operation of the mechanism, the movable member will encounter liquid, such as oyster liquor and water, including salt water, it is preferred that the member 16 be formed from a metal which is non-corrodible by such fluids, one such suitable metal being zinc. Furthermore, by using zinc, the member may be formed by die casting methods. Also, the member 16 carries, preferably, a plurality of diametrically opposed shell-breaking projections 24. If desired, the projections may be formed integrally with the member 16 by appropriate casting, for example. However, particularly for purposes of durability, it is preferred that the projections 24 be in the nature of members separately formed from the member 16 and fixedly connectable thereto by clamping screws or bolts 26, for example.

Referring to FIGS. 6 and 7, one embodiment of separately formed shell-breaking projections 24 is illustrated therein, wherein it will be seen that the member 24 has an integral lug 28 formed on the face thereof which is engageable with the member 16 and said member is provided with a socket 30 which is complementary to the lug 28. The clamping bolt 26 extends through the projection 24, lug 28, and is threadably received within an appropriate hole formed in the movable member 16. Also, it will be seen that the operative face 34 of projection 24 is concave or otherwise suitably formed to provide sharp cutting edges 36 at the opposite lower corners of the projection 24 as viewed in the left-hand side of FIG. 3, for example. The projections 24 cooperate with a stationary anvil 38 which preferably is formed from a hard alloy of non-corrosive metal, such as stainless steel or the equivalent. The anvil 38 is supported by means now to be described. Projections 24 also preferably are of hard metal.

Referring particularly to FIGS. 1 and 4, it will be seen that the base casting 10 which also preferably is formed from non-corrodible material, such as aluminum, has an upstanding portion 40 provided with an upper horizontal surface 42, which is disposed about midway of the overall height of the entire mechanism. Referring to FIG. 4, it will be seen that the upper horizontal surface 42 is formed by an inwardly extending flange which provides a suitable surface to which the stationary anvil 38 is connected for support. Such connection

may be effected by several clamping screws 44, the upper surfaces of which preferably are no higher than flush with the upper surface of the anvil 38, as can be seen from FIG. 3. Also, the stationary anvil 38 has a notch or recess 46 therein which is complementary in shape to the outline of the operative face 34 of the projections 24 on movable member 16, whereby the upper edges of the recess 46 and the cooperating edges of the operative face 34 of the projections 24 comprise shearing edges which respectively engage the upper and lower surfaces of the lip portion 48 of the exemplary oyster 50, such as shown in FIG. 4.

To permit the shearing engagement of the lip portion 48 of an oyster 50 by the projection 24 in coaction with the anvil 38, an opening 52 is formed in the removable cast cover 54 through which the lip of the oyster is projected. The cover 54 coacts with the upstanding portion 40 of base casting 10 to completely enclose the rotatable member 16, except for opening 52, especially during the operation of member 16 by the electric motor. The cover 54 preferably has horizontally extending ears 56 at opposite sides thereof which are complementary in contour to the upper surface 42 of the portion 40 of base casting 10 and is clamped thereto by bolts 58 and wing nuts 60, as shown in FIGS. 1 and 2. The bottom of portion 40 is open to pass oyster shell chips therethrough.

The opening 52 is of predetermined height and width capable of accommodating a wide range of different sizes of oysters, especially the lip or mouth end of such oysters, to enable said end to be projected through the opening 52 until, for example, it engages the outer face of the rotatable member 16. In operation, it will be understood the member 16 is continuously rotated by its power means, and in the event the outer surface of one of the projections 24 is disposed adjacent the anvil 38 when an oyster is inserted through the opening 52, movement of the member 16 is so rapid that, instantaneously, the lip end of the oyster may be pushed inwardly by the operator toward the outer face of the member 16 for contact by the next oncoming projection 24 to form a notch 62 in the lip end of the oyster as illustrated in exemplary manner in FIGS. 3 and 5. The depth of the notch normally is such that it forms an opening into which a blade of a shucking knife readily may be projected for quick severance of the opposite ends of the abductor muscle respectively from the two shells of the oyster. When this has been done, the meat of the oyster quickly is deposited in an appropriate receptacle, not shown, according to size and grade, if desired, and the empty shell quickly may be tossed onto a removing conveyor or appropriate receptacle means, whereupon the operator is free to quickly pick up another oyster and repeat the foregoing procedure.

Suitable guard means also are provided to minimize the possibility of a finger or other portion of the hand of an operator being inserted through the opening 52. The guard 64, which is best shown in FIG. 1, 2, and 4, preferably is formed from flexible sheet material, such as rubber or synthetic resin. The size thereof is such that the lower edge of the guard extends appreciably below the upper edge of the opening 52 but preferably does not contact the upper surface of anvil 38. Though flexible, the guard 64 preferably is adequate to offer limited resistance to the insertion of the lip end of oyster 50 therethrough and, similarly, will offer resistance to any accidental insertion of the finger or other part

of the hand of an operator through the opening 52. The width of the guard 64 also is substantially equal to that of the opening 52. The sheet of material comprising guard 64 readily may be secured in operative position by an appropriate clamping member 66 which may be secured to the front face of the cover 54 by screw 67.

Referring to FIG. 1, it also will be seen that the upper portion of the cover 54 is provided with a rest member 68, which extends upwardly and away from the outer surface of the cover 54 at an acute angle as readily can be visualized from FIG. 1. If desired, the member 68 may be formed from suitable material, such as stainless steel or aluminum. It may be formed integrally with the cover 54 or separately therefrom and secured thereto by suitable means such as screws, rivets, or otherwise, not shown. The function of rest member 68 is to provide an inclined surface upon which the hand of an operator may rest momentarily while holding an oyster in which the notch 62 has been formed to enable the operator to insert a shucking knife or a similar knife through the opening formed by the notch to sever the opposite ends of the abductor muscle from the shell. Through the use of the rest member 68, the oyster may be held steadily by the operator while severing said muscle and thus, minimize fatigue to the operator, as well as possible damage to the meat of the oyster being severed from the shells.

Referring to FIGS. 8 and 9, a different embodiment of projections are provided on the rotatable member 16. Said different embodiment comprises preferably a pair of diametrically opposed substantially cylindrical projections 70, the inner ends of which preferably are received within complementary recesses 72 formed within the outer face of rotatable member 16, as shown in FIG. 9. The projections 70 may be secured in fixed position upon the rotatable member 16 by suitable headed bolts, for example, such as Allen socket head bolts 74, the heads of which engage appropriate recesses formed in the outer ends of projections 70, the threaded portions of the bolts engaging threaded holes 76 on projection 16.

The diameter of each projection 70 is complementary to the width of the recess 46 formed in the anvil 38, whereby the sharp circular edge 76 comprises shearing means coactable with the shearing edge of the recess 46 in the anvil 38.

Referring to FIG. 10, it will be seen that the upstanding portion 40 of base casting 10 supports another embodiment of anvil 82 secured thereto by screws 84. Anvil 82 has a substantially straight shearing edge 86 for coaction with the movable shell-breaking projections 24 which will result in forming a notch 86 in the lip end of exemplary oyster 88, as shown in dotted lines therein, when the oyster is introduced into the receiving opening in the cover, such as opening 52 shown in FIG. 1. Anvil 82 also has an apron 83 extending outwardly beyond portion 40 of base 10 and also sloping downwardly at a small angle below the horizontal for purposes to be described.

In FIGS. 11 and 12, a modified form of guard 90 is shown comprising a rectangular metal plate having an outwardly and upwardly extending camming lip 92 thereon. The guard 90 is pivotally connected at one end by a screw 94 to the front face of cover 54 for relatively free pivotal movement, controlled by screw 96

which extends through a short arcuate slot 98 in guard 90.

The weight of guard 90 is such as normally to move the closure end downwardly and, thereby carries lip 92 with it to cover opening 52 in cover 54. The camming lip 92, as clearly shown in FIG. 12, is at an appropriate angle to serve as a cam when engaged by the lip end of oyster 88, to move the closure end of guard 90 upwardly sufficiently to permit said lip end of the oyster to be inserted through opening 52 sufficiently to permit one of the projections 24 to shear a notch into said end of the oyster. The guard lip 92 slidably follows the oyster during such insertion and thus makes it virtually impossible for a shucker to push his finger or thumb through the opening 52 when inserting an oyster into the same. The angularity of lip 92 also cooperates with the angularly extending apron 83 of anvil 82 to form a sort of flat funnel arrangement to guide the lip end of an oyster toward opening 52 and also aids the shucker in placing the oysters in operative relationship relative to the machine.

To further insure the maintainance of the guard 90 in closed position over opening 52 except when moving an oyster into the same, suitable biasing means, such as an exemplary spring 100, may be employed by securing it around mounting screw 102 and providing a hooked end 104 which engages over the upper edge of guard 90, while the other end 106 is received in a hole 108 in cover 54. The force exerted by spring 100 preferably is light enough to insure closing of the guard 90 over opening 52 but not substantially increase the force necessary to cam the guard upwardly when inserting an oyster in opening 52.

It is also conceivable, in accordance with the principles of the present invention, that the disc 16, which serves somewhat as a flywheel, for relatively constant momentum, may be provided on its periphery with impinging projections having projecting shearing edges which coact with a stationary anvil plate suitably supported at one end of portion 40 of base casting 10 and a corresponding end of cover 54 will have an opening 52 therein positioned appropriately to permit introduction of the lip end of oyster therethrough for shearing by said impinging projections on disc 16. The guards 64 or 90 also may be adapted to the aforementioned opening 52 to protect the fingers and thumbs of operators.

The operation of the several embodiments of the oyster breaker comprising the present invention is extremely simple. The electric motor within the shell 12 is controlled by operation of a switch 78 to which an electric conduit 80 is connected from a source of current. Upon energizing the motor, rotation of the movable shell-breaking member 16 commences and continues until the switch 78 is opened to interrupt the current. It is only necessary for an operator to pick up an oyster adjacent the hinge end thereof, which is opposite the lip or mouth end of the oyster and, while holding the hinge end of the oyster in one hand and facing the outer surface of portion 40 of the base casting 10 and cover 54, the lip end of the oyster is inserted through opening 52 while held substantially horizontally for instantaneous formation of a notch 62 therein. Such horizontal position tends to retain some of the liquor in the shell.

After formation of the notch 62 in the shell, the operator immediately removes the oyster from opening 52,

and instantly either places the oyster or supports his hand either directly against the upper surface of rest member 68 or upon any other suitable surface as desired, and inserts the blade of an oyster shucking knife into the opening formed by notch 62 in order to sever the opposite ends of said abductor muscle from the shells. The meat of the oyster which has thus been severed from the shells then is quickly desposited into an appropriate receptacle adjacent the machine, followed by an immediate flipping of the empty shell onto a suitable conveyor or collecting receptacle for the shells. The separated meat of the oyster may be deposited according to grade and size, if desired, by providing a plurality of different containers to receive the oysters of individual grade and size.

Whereas the training of an inexperienced person to shuck oysters by conventional hand means, comprising the insertion of the blade of an oyster shucking knife between the two shells at the lip end thereof, requires an extensive amount of time, and even an experienced shucker is constantly in danger of his hand being subjected to injury by accidental slipping of the shucking knife from the shell, it is possible to train an inexperienced operator to use the power-operated oyster breaker comprising the present invention in a period of time as little as a few days and achieve a speed in shucking equal to that attainable by an oyster shucker of several years' experience, using conventional hand or shucking methods. Upon gaining further experience in the use of the breaker comprising the invention, it is highly possible for an operator to shuck from between approximately 50 percent and 150 percent more oysters than a corresponding oyster shucker using conventional hand methods.

Of equal importance is the fact that by using the breaker comprising the present invention, the possibility of the operator sustaining injury is very greatly reduced, and as long as reasonable care is exercised, the danger is practically nil. Similarly, the amount of physical force required to sever the abductor muscle from the shells of the oyster is so much less than that required to open the shells of an oyster by conventional manual methods, that it now becomes feasible to employ a greater percentage of female operators than are employed at present. Conventionally, it has long been the practice in the oyster industry principally to employ male operators to shuck oysters due to the arduous nature of the work when employing presently used, manual means. Because of this, it has also been increasingly difficult in recent years even to obtain or train satisfactory male operators. However, by minimizing the amount of physical effort required to shuck oysters by using the breaker comprising the present invention, the oyster shucking trade now becomes much more attractive than previously to both new and experienced shuckers, including both male and female. The somewhat seasonal nature of the business also appeals to housewives as a source of at least part-time employment.

While the invention has been described and illustrated in its several preferred embodiments, it should be understood that the invention is not to be limited to the precise details herein illustrated and described since the same may be carried out in other ways falling within the scope of the invention as illustrated and described.

We claim:

1. A power-operated oyster breaker comprising in combination a housing having an entrance opening in a substantially vertical wall thereof, stationary support means disposed normally in a substantially horizontal plane in use adjacent said opening to support the lip end of an oyster when positioned upon said support means substantially horizontally and projected through said opening, a disc-like breaking member supported for rotation within a substantially vertical plane and having one face movable adjacent an edge of said support means about a substantially horizontal axis, said face being arranged to serve as a stop surface engageable by the lip end of an oyster to limit the extent to which an oyster may be inserted through said entrance opening, power means operable to rotate said breaking member about the axis thereof, said breaking member having at least one projection extending from said one face thereof and cooperable in shearing relationship with said edge of said support means to chip said lip end of an oyster to form an opening adapted to receive a severing member by which the abductor muscle of an oyster may be severed from the shell to permit ready opening of the oyster to obtain the bivalve mollusk therefrom, and a guard member positioned relative to said opening and movable away from said opening incident to insertion of one end of an oyster through said opening for engagement by said breaking member, said guard being operable to prevent accidental entry of the hand or finger of an operator through said opening.

2. The oyster breaker according to claim 1 in which said guard comprises a flexible member connected to the top of said opening and depending downward at least partially across said opening toward said oyster support means and adapted to be pushed inwardly toward said breaker member incident to inserting the edge of an oyster into said opening.

3. The oyster breaker according to claim 1 further including rest means on said housing having a surface upon which the hand of an operator or an oyster may be supported incident to severing the abductor muscle from said shell by inserting a knife through the opening formed in said shell.

4. The oyster breaker according to claim 3 in which said supporting surface upon said rest member extends

at an acute angle to the horizontal upwardly and rearwardly from said wall of said housing within which said opening is provided.

5. The oyster breaker according to claim 1 in which said housing is open at the bottom beneath said rotatable member for the discharge therethrough by gravity of pieces of oyster shell removed from oysters by said breaker.

6. The oyster breaker according to claim 1 in which the power means for said rotatable member comprises an electric motor contained within said housing and having a shaft upon one end of which said rotatable member is connected, and said housing having a base portion positionable upon a supporting surface and the portion of said housing in which said rotatable member is enclosed having an upper portion separable from a lower portion to permit access to said rotatable member.

7. The oyster breaker according to claim 1 in which said guard member comprises a plate pivotally supported for movement between closed and open positions relative to said opening, and said guard member including means engageable by an oyster and adapted to move said plate relative to said opening sufficiently to permit said oyster to be engaged by said breaking member.

8. The oyster breaker according to claim 7 in which said last mentioned means comprises a cam surface upon said plate engageable by said oyster to move said guard plate as aforesaid.

9. The oyster breaker according to claim 8 in which said cam surface comprises a lip extending at an angle from said plate.

10. The oyster breaker according to claim 8 further including spring means operable normally to bias said plate toward closed position relative to said opening.

11. The oyster breaker according to claim 9 in which said support means for an oyster comprises an anvil having an outwardly and downwardly extending apron arranged to cooperate with said lip upon said guard member to facilitate guiding the lip end of an oyster toward and through said opening in said housing.

* * * * *

45

50

55

60

65