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L. A. CROWL ET AL
COLLAPSIBLE DAGGER FOR STABBING
AND OPENING OYSTERS ETC
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2,516,618

Fig. 1

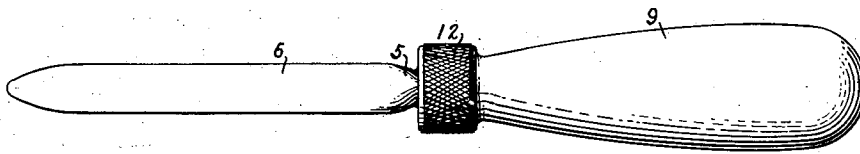


Fig. 2

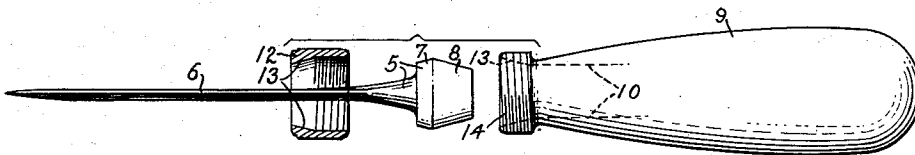


Fig. 3

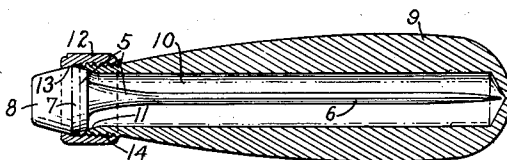
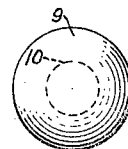


Fig. 4



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UNITED STATES PATENT OFFICE

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COLLAPSIBLE DAGGER FOR STABBING AND
OPENING OYSTERS, ETC.

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2 Claims. (Cl. 279-91)

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This invention relates to oyster-opening tools, also to tool-handle fasteners, and especially to a collapsible dagger for stabbing and opening oysters, etc.

One object of this invention is to provide a collapsible dagger or the like that is composed of only a few simple primarily separate parts that can be made at low cost by an "automatic screw machine," or by forging, or by casting, or by moulding.

Another object is to provide a device such as above-described, and which can be quickly and easily manipulated so as to transform it from its collapsed, shortened, safe-packing condition, to its normal working or oyster-stabbing condition, viz., in a condition in which the blade or work-engaging portion is rigidly secured to the handle and has the blade extending from one end of the handle when in position to cooperate with the handle for stabbing and opening oysters; also, which can be manipulated so as to disconnect the blade from its operable engagement with the handle, to insert the blade in a chamber of the handle, and to secure the blade in both inner and outer positions by a unitary fastening means or unit.

Other objects and important features are pointed out or implied in the following details of description, in connection with the accompanying drawings in which:

Fig. 1 is a side-view of the invention in its normal operative condition.

Fig. 2 is an exploded view showing the three separately formed parts in mutually aligned position so as to be mutually engaged by relative inward movements along a straight line, the blade being turned with one edge toward the observer.

Fig. 3 is a longitudinal sectional view thru the handle and securing device or nut, the blade or work-engaging element being in the chamber that extends approximately from end to end of the handle, one edge of the blade being toward observer.

Fig. 4 is an end-view of the handle.

In referring to these drawings in detail, in which, in preference-numerals refer to similar parts in different views, the invention is described

as follows:

In brief terms, the invention comprises a tool-element that includes an elongated work-engaging portion or symmetrical blade 6 and a handle-attaching portion which latter comprises two cone-frustums 7 and 8 whose axes are mutually aligned and whose bases are integrally united, said work-engaging portion being united

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with the smaller end of one of the cone-frustums and disposed along a line that extends outward from said axes, said cone-frustums being of proper shape and size to fit interchangeably in a handle-socket-portion of substantially the same shape and size.

More specifically, the invention is a combination that includes the above-described tool-element 5 and a symmetrical hollow handle 9, the latter having a socket 10 whose inlet end is inwardly convergent at 11 and normally having one of the cone-frustums 7 or 8 snugly fitted therein. The securing means comprises a nut 12 normally having its screw-threads 14 engaged with a screw-threaded end of the handle 10 and with the outer one of the cone-frustums, at 13, so as to secure the tool-element 5 in rigid connection with the handle 10.

The invention includes only a single blade 20 united with the frustum 7 and extending axially therefrom, because a second blade united with either frustum would not only add to the cost of producing the invention, but would also defeat the very important purpose of shortening the device to slightly more than one-half its extended, stabbing, length. By thus shortening the device, by enclosing the single blade within the handle, there is eliminated the danger that would result from a second blade that would necessarily project from the handle and present a continual danger in putting or carrying the knife in a user's or carrier's pocket and in taking it from the pocket.

The frustum 8 is at the opposite side or end of the frustum 7 from the knife or blade 6; and this frustum 8 is approximately twice as long as the difference between the major and minor diameters of the frustum 8. This relative length and low or slight taper are quite advantageous in obtaining and maintaining maximum rigidity of the blade with respect to the handle, viz., preventing looseness in the joint between the frustum 8 and convergent or tapering seat 11, the latter being of the same degree of low convergence as is the frustum 8, viz., about fifteen degrees from the frustums' axial center.

We have no intention to limit our patent protection to the precise details of description and illustration in the foregoing and in the drawings, for the invention is susceptible of various changes within the scope of the inventive ideas as implied and claimed.

Our invention is claimed as follows:

1. In a tool element, a unit that consists entirely of a relatively thin and wide symmetrical single dagger-blade and two immediately united

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cone-frustums, one of these cone-frustums being the larger and approximately twice as long axially as is the difference between the major and minor diameters thereof and being tapered about fifteen degrees from its axial center, the other or shorter one of said frustums being between said dagger-blade and said larger frustum and united therewith in such relation that the dagger-blade projects from the minor end of the shorter frustum, said larger frustum being adapted to fit in a hollow seat of approximately the same length and the same low taper and mean diameter so as to obtain and maintain maximum rigidity between said blade and hollow seat.

2. The unit defined in claim 1, in combination with a handle having therein a seat of approximately the same length and low taper and mean diameter as of said larger frustum which is tightly fittable in said seat, and an annular se-

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curing member having an internal seat for exerting pressure against said shorter frustum, said handle and annular securing member being operatively connected for adjustment and cooperation for increasing pressure and maintaining a close and tight fit of the joint between said larger frustum and seat in said handle.

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