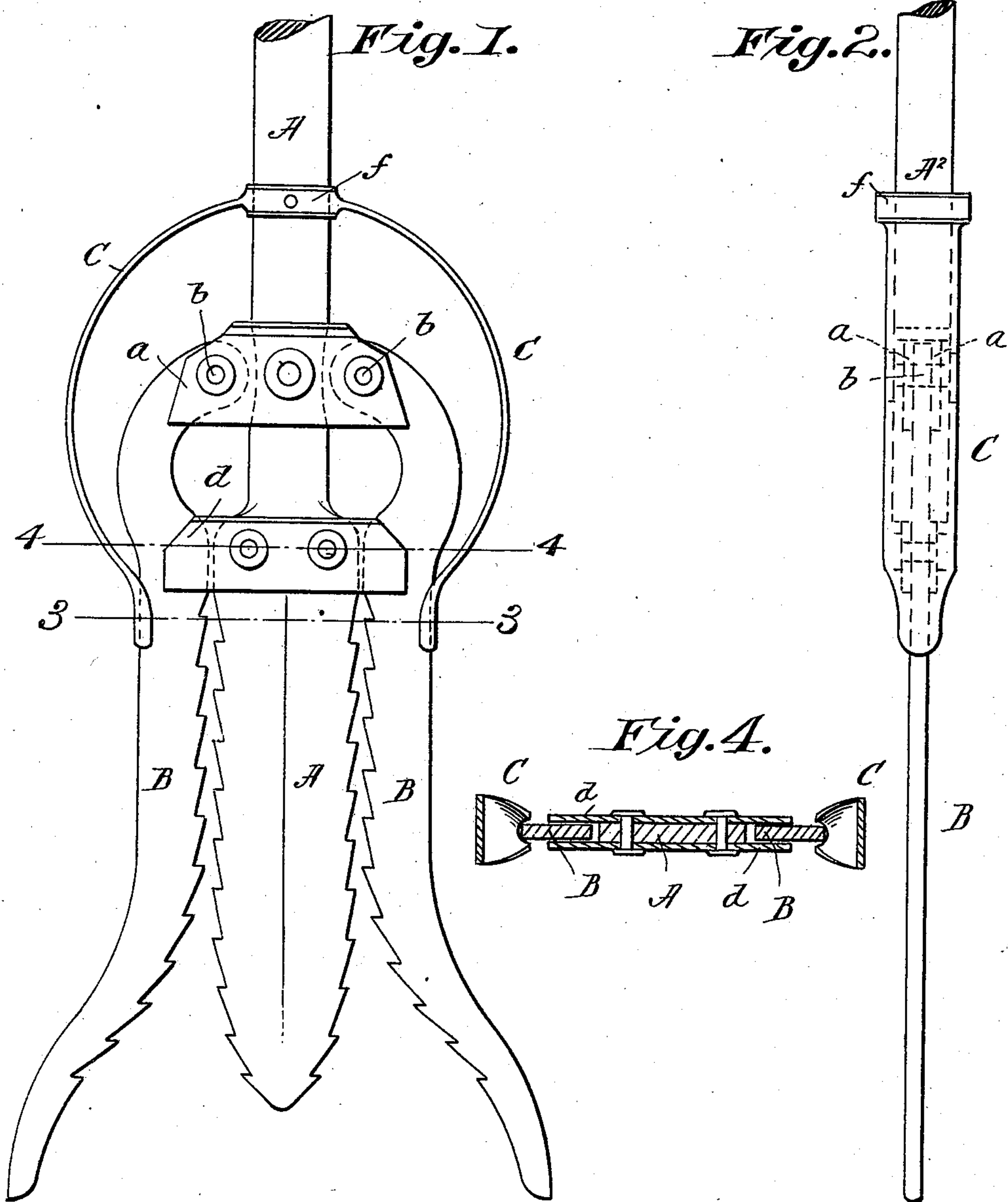


(No Model.)

M. C. KROLL.
EEL SPEAR.

No. 504,166.

Patented Aug. 29, 1893.



Witnesses:
J. D. Garfield
H. J. Clemons

Fig. 3.
Inventor,
Mikkel C. Kroll,
per Chapman & Co.
attys.

UNITED STATES PATENT OFFICE.

MIKKEL C. KROLL, OF NORTHAMPTON, MASSACHUSETTS.

EEL-SPEAR.

SPECIFICATION forming part of Letters Patent No. 504,166, dated August 29, 1893.

Application filed December 15, 1892. Serial No. 455,316. (No model.)

To all whom it may concern:

Be it known that I, MIKKEL C. KROLL, a subject of the King of Denmark, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Eel-Catching Devices, of which the following is a specification.

The object of this invention is to improve the construction of eel-spears to the end of rendering them unusually efficient in operation, as well as durable, the improved spear being moreover very simple and practicable of construction.

The invention comprises, in an eel-spear, the combination with an intermediate serrated blade, and two serrated blades pivotally supported at each side thereof to swing toward and from it, and springs for forcing the side blades toward the intermediate blade;—and the invention consists, furthermore, and otherwise, in the construction and combination or arrangement of parts all substantially as will hereinafter fully appear and be set forth in the claims.

In the accompanying drawings the improved eel-spear is illustrated, Figure 1 being a side view, and Fig. 2 an edge view; and Figs. 3 and 4 are cross-sections taken respectively on the line 3—3 and 4—4, of Fig. 1.

In the accompanying drawings A represents the fixed blade of which A² is the shank or extension, the latter being of metal or wood, as preferred. The blade, A, as shown, is of a dagger form with the edges, that is the blade is beveled toward each edge and narrowed at the point, but the edges are provided with the ratchet-like serrations.

B, B, represent the movable blades which are supported for swinging movement toward and away from the edges of the fixed blade, and C C represent the springs which normally maintain the pivoted blades in their relations of approach to the intermediate blade. The blades, B B, are preferably mounted thus:— At an upper part of the blade, A, or upon the shank extension thereof, are secured, by riveting through and through, a pair of bars, a, which are of such a thickness as to be sufficiently rigid, which bars have paired extensions beyond each edge of the blade or its shank, and the upper ends of the said blades,

B, B, are inserted within the space between these paired bar extensions and are held in place by the pivot pins, b, b. These blades, B B, are of metal of such thickness as to be quite rigid and the lower ends thereof extend in divergence relative to and below the lower end of the fixed blade, so that the spaces between the approached edges of the intermediate and outer blades are upwardly convergent and bounded by the ratchet-like blade-edges for the obvious result in the operation of the eel-spear. The movable blades, B B, are guided in their outward movements, as occur at the time of use of the implement, by guide-members which are supported by the blade and supported beyond the edges thereof at opposite sides of the movable blade, and as a preferred form of construction, to this end bars, d, d, of sufficient rigidity are riveted at each side of the intermediate blade, the extremities thereof extending in pairs beyond the edges of the blade, all as clearly shown in Fig. 4.

As a preferred and economical, as well as practical manner of constructing and applying the springs, C C, the same are formed as one with, and extended from, the opposite sides of the ring, f, which encircles the shank or pole, which is connected to the intermediate blade, and which is secured thereto by riveting or otherwise.

I claim—

1. In an eel-spear, the combination with an intermediate, serrated blade, and two serrated blades pivotally supported at each side thereof, and adapted to swing toward and from it, and springs for forcing the side blades toward the intermediate blade, substantially as described.

2. In an eel-spear, the combination with a fixed, serrated blade and two side blades pivotally supported at each side thereof to swing toward and from it, springs for forcing the side blades toward the intermediate blade, and guide-members supported by the blade and extended therefrom at opposite sides of the movable blades, substantially as described.

3. In an eel-spear, the combination with the fixed, serrated blade having a suitable shank or extension and having cross-bars placed on opposite sides of the shank and riveted there-

to, and two serrated blades having their upper ends within the paired bar-extensions and pivotally connected, and springs applied to said pivoted blades to force them toward the
5 fixed blade, substantially as described.

4. The combination with a fixed blade having two pairs of bars riveted to upper portions thereof, and all extended beyond the opposite edges thereof, of a pair of serrated
10 blades having their upper ends between and pivoted to the paired extensions of the upper bars, and having intermediate portions thereof playing within the paired extensions of the lower bars to be guided by the latter, and the
15 springs applied for inwardly forcing the side blades, substantially as described.

5. In an eel-spear, the combination with a fixed blade which, from its middle is beveled toward each edge and which is tapered to-
20 ward its end and provided with serrations,

and two blades which are beveled and serrated and which are pivotally supported at each side of the fixed blade to swing toward and from it, the lower extremities of which movable blades terminate below and in divergence
25 relative to the lower end of the fixed blade and the springs for forcing the side-blades inwardly, substantially as described.

6. In an eel-spear, the combination with an intermediate blade and its shank or extension,
30 and the pivotally supported blades, of a collar encircling and secured to the shank and having the oppositely extended curved spring-arms which inwardly force the pivoted blades, substantially as described.

MIKKEL C. KROLL.

Witnesses:

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