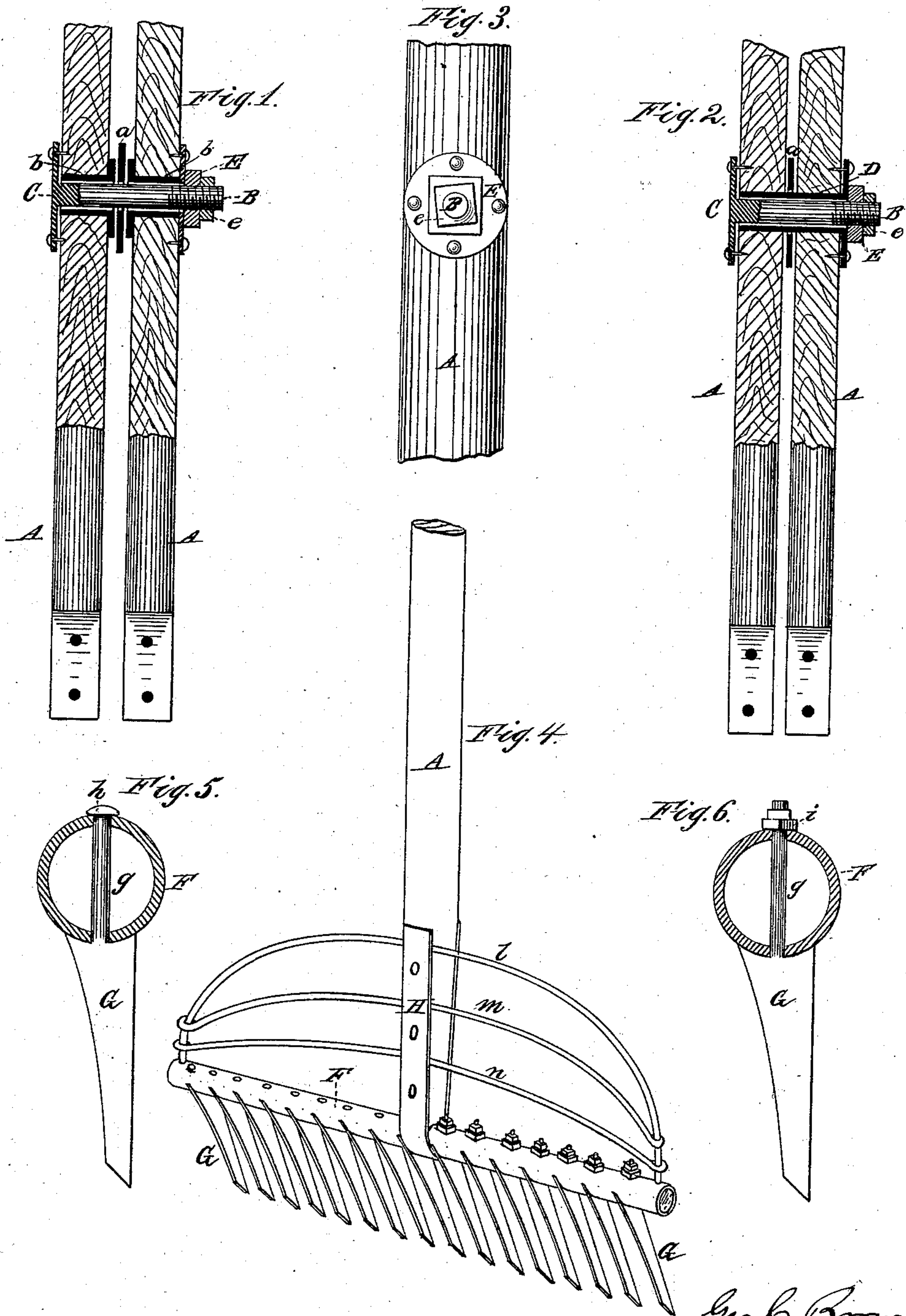


(No Model.)

G. C. BROWN.
Oyster Tongs.

No. 237,160.

Patented Feb. 1, 1881.



Attest:
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UNITED STATES PATENT OFFICE.

GEORGE C. BROWN, OF BROOKLYN, NEW YORK.

OYSTER-TONGS.

SPECIFICATION forming part of Letters Patent No. 237,160, dated February 1, 1881.

Application filed August 4, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. BROWN, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful
5 Improvements in Oyster-Tongs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention has particular relation to that class of devices used for dredging oysters, and ordinarily denominated "oyster-tongs," although, as will be apparent from the following description, the several features of im-
15 provement are applicable to tongs or grapples employed for other special purposes, or to any form of implement wherein their distinct features of utility may be advantageously employed.

20 Heretofore and previous to my invention the heads of oyster-tongs have been commonly constructed by welding the teeth or prongs upon a solid bar, which method of construction necessitated the frequent heating of the
25 bar or head, resulting in the destruction of the strength and lasting qualities of the iron, and requiring a heavier bar than would seem to be necessary to withstand all the strains to which the tongs are exposed when in ordinary use,
30 and, further, requiring the services of an experienced smith to make any repairs thereto; also, in previous forms of these devices the hinge or coupling for the two poles has been of such a character as to allow the poles to
35 twist too much beneath the joint or hinge, by reason of which, when oysters or other objects become wedged between the teeth or prongs near one extremity of the tongs, the other extremity remains open and prevents the grap-
40 pling and securing of a full load.

To obviate these several defects, and to produce a light, cheap, durable, and efficient implement, which may be quickly and easily repaired by any ordinary workman, and in which,
45 in the event of the loss of any one of the parts, it may be readily replaced, are among the prominent features of my invention.

To accomplish all of this my improvement involves certain novel and useful combinations
50 or arrangements of parts and peculiarities of construction, all of which will be hereinafter

first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a sectional view through the axis of the connecting-bolt or hinge, showing the poles in place, the tong-
55 heads being detached from the poles, and indicating the most approved form of hinge-joint. Fig. 2 is a similar view, in which the poles are shown as hinged together without
60 the use of the short thimbles indicated in Fig. 1; and Fig. 3 is an elevation, showing one of the thimble-plates, with the locking-nut in position upon the pole. Fig. 4 is a perspective
65 view, illustrating one of my improved tong-heads as attached at the end of its pole; and Figs. 5 and 6 are sections at right angles to the head, showing the manner of connecting the teeth or prongs together.

Like letters of reference wherever they occur indicate corresponding parts in all the figures.

A A are the two operating-poles, usually made of wood, being coupled at a suitable distance above the tong-heads, which are secured
75 at their lower extremities. To couple these poles so that the tongs may be opened and closed easily and without danger of twisting out of position, I employ the bolt B, having an elongated flat head, C, pinned, screwed, or
80 otherwise secured upon one of the poles, the bolt being made to pass through a thimble or sleeve, D, having a corresponding head, which is secured upon the other face of the opposite pole, and being held against accidental displacement or disarrangement by the nut E
85 with any kind of locking contrivance—as, for instance, the set-nut *e*. To prevent wear upon the interior of the poles, a washer, *a*, may be employed. The hinge or coupling, being so
90 made, is easily applied, easily disconnected, and it maintains the poles in their proper working positions. The poles are exposed to wet and dry situations alternately, and are liable to check and split and to other damage
95 in the region of the joint or hinge, all of which I obviate to a considerable extent by use of the metallic thimbles, as shown in the drawings. These thimbles may be made of any
100 suitable metal, preferably cast iron or steel, and if cast they may be conveniently replaced at any time by one of corresponding size, the

parts being interchangeable, after the manner of elements of any machine made to pattern.

The bolt B, in order to be most durable, is preferably made of cast-steel; but a wrought
5 or cast iron bolt may be made to answer the purpose. Wooden pins have heretofore been used in this situation.

The cross-head F is made of metallic tubing of convenient size or diameter, and the
10 prongs or teeth G are secured in this by use of a shank, *g*, upon each, which passes through perforations made in the tubing, and secured in place by riveting or battering, as at *h*, or by
15 a nut, *i*, with any suitable set-nut or means of preventing accidental turning. If the riveting or battering be employed, the tooth when damaged may be displaced by use of a simple punch, and a new one inserted and riveted while cold;
20 or, in case the nut is employed, it may be readily unscrewed by means of a wrench and a new tooth quickly inserted in its place. Thus it will be seen that the teeth may be replaced without the old process of welding and by use of only ordinary tools. The tubular cross-head is light
25 and durable, and is at the same time in the best form to resist all strains to which it is likely to be exposed, considering the weight of metal employed. Its lightness makes the whole device easier to handle and use, and the
30 facility with which the teeth may be inserted will especially recommend it for use in place of those forms whereon the teeth are necessarily welded, requiring skilled labor to accomplish any repairs. The body of each tooth at
35 the junction of the shank is made to conform to the contour of the circular cross-head, and when brought snugly into place, by riveting or by tightening the nut, the tooth is held firmly against any lateral displacement.

40 The teeth may be cast, sheared, or otherwise cut from suitable metal, and if they are furnished without screw-threading the shanks, the upper perforations in the cross-head should be countersunk, as plainly shown, the better to
45 accommodate the battered head. The teeth are preferably made of cast-steel.

The cross-heads are secured to the poles by use of straps H, passing around the middle and bolted to the poles, and the ends of the

tubes are plugged by any suitable means, to
50 exclude water and dirt.

It is customary to provide a basket or net-work about the tongs to retain the things grappled, and for this I provide any desirable
55 number of wires *l m n*, the upper one, *l*, passing through perforations in the cross-head, near each extremity thereof, and under the strap H, by which it is held in place. The others are secured at the ends upon the first wire in any
60 desirable manner, and they likewise pass under the strap H.

Of course any number of teeth may be employed, (usually about sixteen is all that is required,) and they may be of any desired size
65 corresponding to the character of the work they are required to perform.

When constructed and arranged substantially in accordance with the foregoing explanations, the improved tongs are found to admirably answer the several purposes and ob-
70 jects of the invention, as previously stated.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described hinge-joint for the
75 wooden cross-poles of oyster-tongs, composed of a solid metallic bolt and a metallic thimble passing through both poles, said bolt and thimble having elongated heads secured in position upon the poles, substantially as shown
80 and described.

2. The herein-described oyster-tongs, composed of the wooden cross poles hinged together by a bolt and metallic thimbles, as set forth, the metallic tubular cross-heads having
85 the metallic teeth inserted therein, as shown, the basket-wires secured at their ends in the cross-heads, and the flat straps bolted to the ends of the poles and holding the cross-heads and basket-wires in place, all as shown and set
90 forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

GEORGE C. BROWN.

Witnesses:

CHAS. H. BROWN,
V. P. CHIQUOINE.