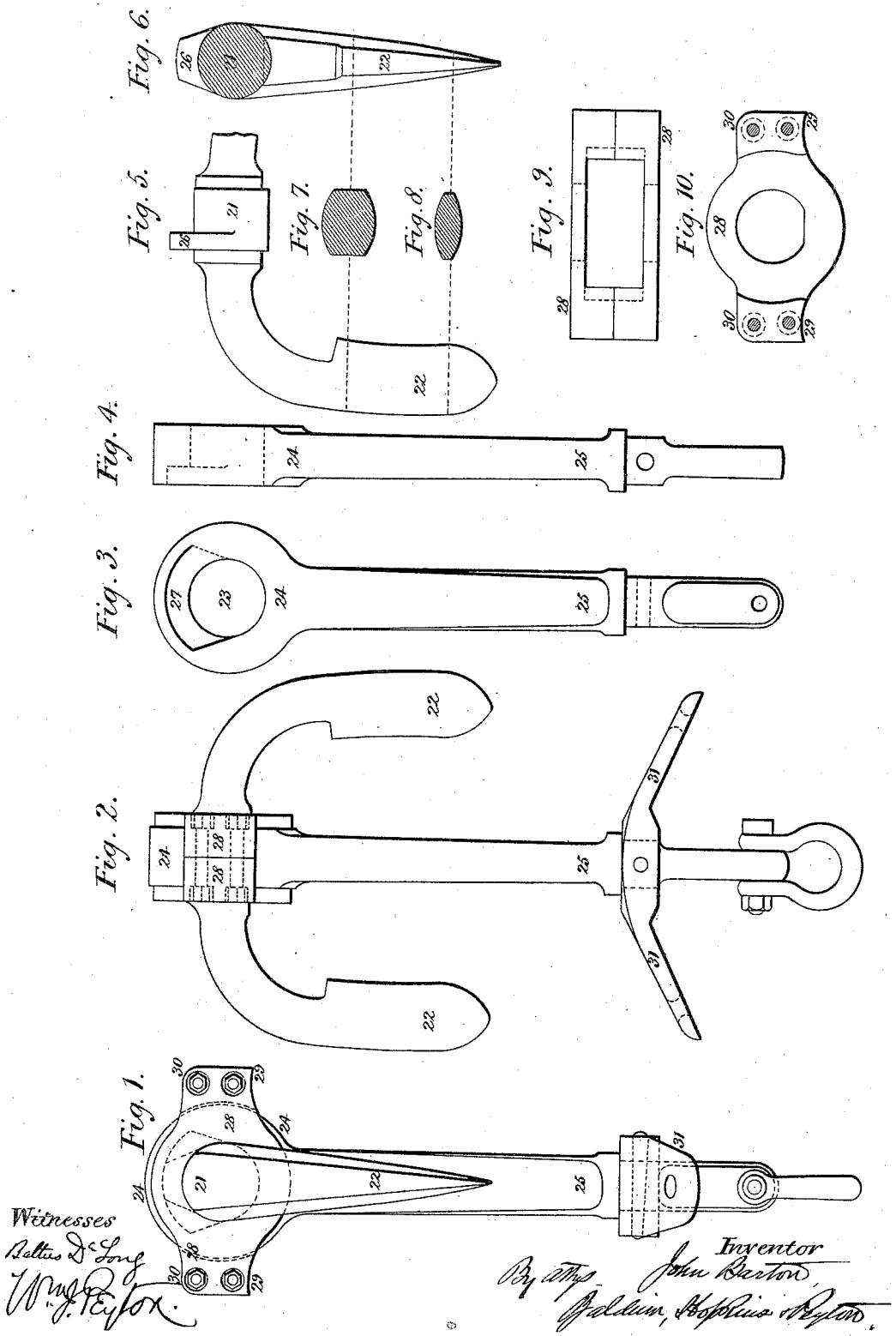
(No Model.) 2 Sheets—Sheet 1.

J. BARTON.

ANCHOR.

No. 341,872. Patented May 18, 1886.



Witnesses
Baltus DeLong
W. J. Peyton.

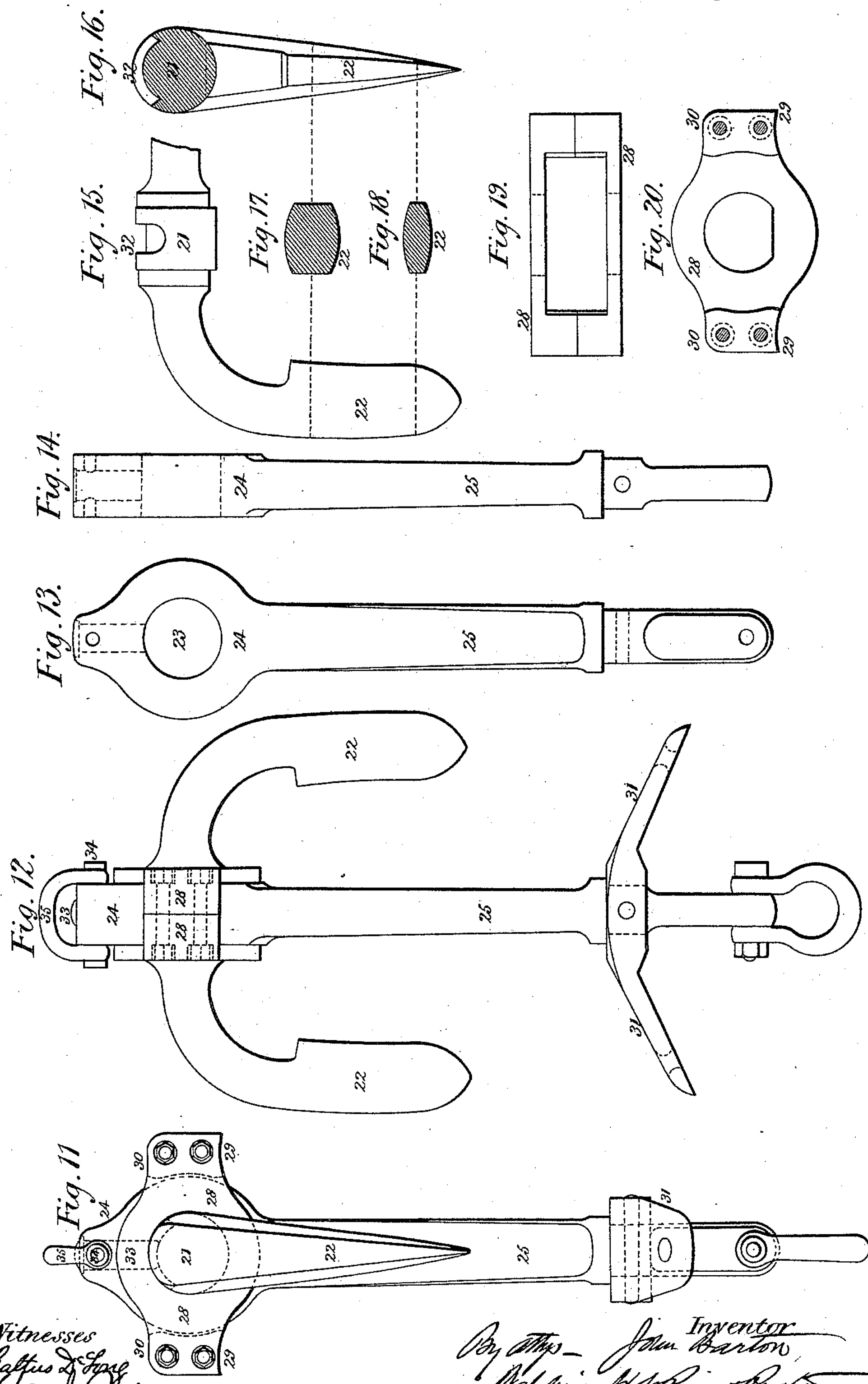
Inventor
John Barton,
By attys
Goldsborough, Robertson & Peyton.

(No Model.) 2 Sheets—Sheet 2.

J. BARTON.

ANCHOR.

No. 341,872. Patented May 18, 1886.



Witnesses
Baltus D. Long
Wm. J. Peyton

Inventor
John Barton
By attys—
Baldwin, Hopkins & Peyton.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN BARTON, OF GLASGOW, COUNTY OF LANARK, SCOTLAND.

ANCHOR.

SPECIFICATION forming part of Letters Patent No. 341,872, dated May 18, 1886.

Application filed November 4, 1885. Serial No. 181,846. (No model.) Patented in England December 7, 1883, No. 5,663.

To all whom it may concern:

Be it known that I, JOHN BARTON, a subject of the Queen of Great Britain, residing at Glasgow, in the county of Lanark, Scotland, engineer, have invented certain new and useful Improvements in Anchors, (for which I have received Letters Patent in Great Britain No. 5,663, dated December 7, 1883,) of which the following is a specification.

My said invention relates to anchors of the kind having movable fluke-pieces; and its object is to improve the construction and increase the efficiency of such anchors, while, in some modifications, dispensing with pins, keys, or cotters in any position where they would be subjected to strain or be liable to have their action interfered with by the lodgment of sand or earth. At the same time a portion of my improvements may in some cases be combined with arrangements comprising pins, keys, or cotters, and in such cases the defects of such arrangements will be considerably reduced.

Examples of anchors made with my improvements are delineated on two accompanying sheets of explanatory drawings, and are hereinafter particularly described.

One modification of my improved anchor is shown on Sheet 1 of the drawings, Figures 1 and 2 being edge and side views of the complete anchor; Figs. 3 and 4, similar views of the shank by itself; Figs. 5 and 6, a side view and a section of part of the fluke-piece; Figs. 7 and 8, sections of different parts of the fluke; Fig. 9, a plan of a box which works on the shank-head, and Fig. 10 is an inside view of one-half of this box; Figs. 11 to 20 on Sheet 2 of the drawings are similar views explanatory of a second modification.

In these drawings the same reference-numerals are used to mark the same or like parts wherever they are repeated.

In the anchor shown on Sheet 1 of the drawings the middle 21 of the fluke-piece 22 21 22 fits and can turn in a round eye, 23, formed in the head 24 of the shank 25, and its movement to either side is limited by a projecting segment, 26, formed on it and working in a recess, 27, formed in one side of the shank-head 24. The fluke-piece when in its finished shape can be entered into its place through the eye 23 in the shank-head 24, and after being so entered a pair of plates, 28, are applied, being strung one upon each arm of the fluke-piece, and brought close to the opposite sides of the shank-head 24, and, after being bolted together, prevent the fluke-piece from getting out of place. The plates 28 when bolted together form a kind of box external to the shank-head 24, but which moves with the fluke-piece 22 21 22, and is made with angular inner corners, 29, of which the one happening to be undermost catches in the ground, so as to make the flukes 22 turn downward and bite or take hold as quickly as possible. With this arrangement and configuration the anchor will take hold much more quickly and certainly than many anchors having movable fluke-pieces. The other corners, 30, of the box-plates 28 are rounded, so that the cable is not liable to foul on them. The flukes 22 are made to project from the fluke-arms on the inner side only. They are convex on their faces, as is shown by the Figs. 7 and 8, and their edges are planes at right angles to the plane of their center lines. The fluke-piece of this improved shape is not only easier to make, but is also better adapted to resist the strains to which it has to be subjected. The bolt heads and nuts of the box-plates 28 are sunk into the plates, so as to present no projections which would be liable to injury. The steadying arm-piece 31 is made with a bored eye, and is fitted on a turned bearing-surface on the shank 25, being secured by a pin passing through it and the shank.

In the modification shown in Figs. 11 to 20, on Sheet 2 of the drawings, there is substituted for the projecting segment 26 on the middle of the fluke-piece and the recess 27 for the projection 26 to work in an elongated recess, 32, formed in the middle part, 21, of the fluke-piece, and a steel pin, 33, fixed in the shank-head 24 and projecting into the recess 32. The recess 32 extends sufficiently round the middle part, 21, of the fluke-piece to allow of this piece assuming the proper angle of about forty-one degrees of the circle to either side of the shank. The steel pin 33 is entered inward through a hole bored for it in the shank-head 24, and is fixed by a cross-pin, 34, which may also serve for the attachment of a shackle, 35, for a buoy-rope. In some cases the projecting-pin and elongated recess 32 33

may be used, in combination with the analogous parts, 26 27, Sheet 1, the shank-head 24 being made thick enough for both, or the device 26 27 being applied at the inner side of the fluke-piece or opposite to the device 32 33.

Having thus particularly described my said invention and the manner of performing the same, I have to state that I do not restrict myself to the precise details herein described or delineated; but that

What I believe to be novel and original, and claim as the invention secured to me by and in terms of the hereinbefore-in-part recited Letters Patent, is—

1. An anchor in which the fluke-piece is inserted through an eye in the shank-head, is retained by a box-piece, and is controlled in its angular movement by a projection and elongated recess in the joint parts of the fluke-piece and shank-head, substantially as set forth.

2. An anchor in which the fluke-piece is inserted through an eye in the shank-head, is retained by a box-piece, and is controlled in its angular movement by a projection, 26, on the fluke-piece confined in a recess, 27, in the shank-head, substantially as described.

3. An anchor in which the fluke-piece is inserted through an eye in the shank-head, and in which the flukes are convex on the faces, flat on the edges, and project from the fluke-arms on the inner side only, substantially as set forth.

JOHN BARTON.

Witnesses:

A. BOYD PATON,
Law Clerk, 173 *St. Vincent Street, Glasgow.*

THOMAS M. STEWART,
Solicitor, 173 *St. Vincent Street, Glasgow.*