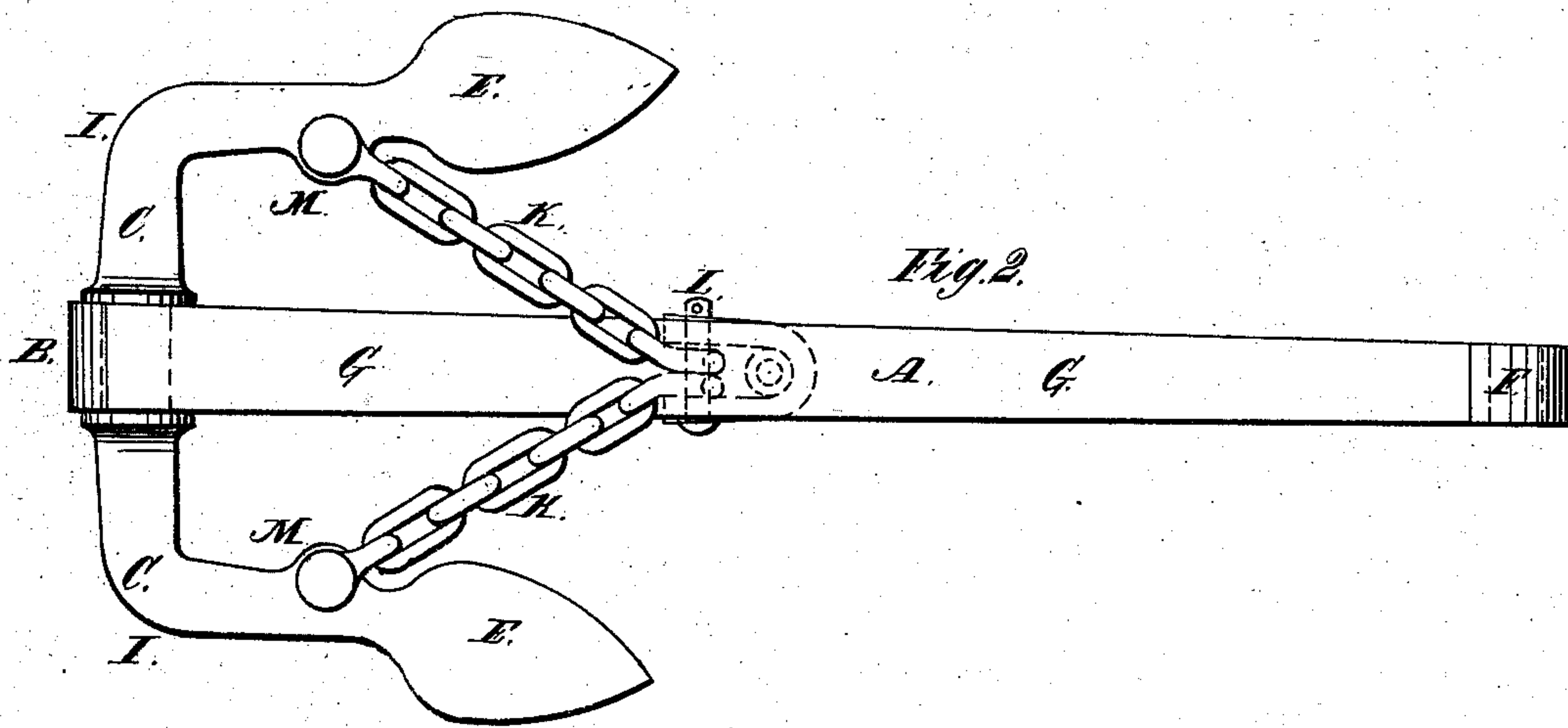
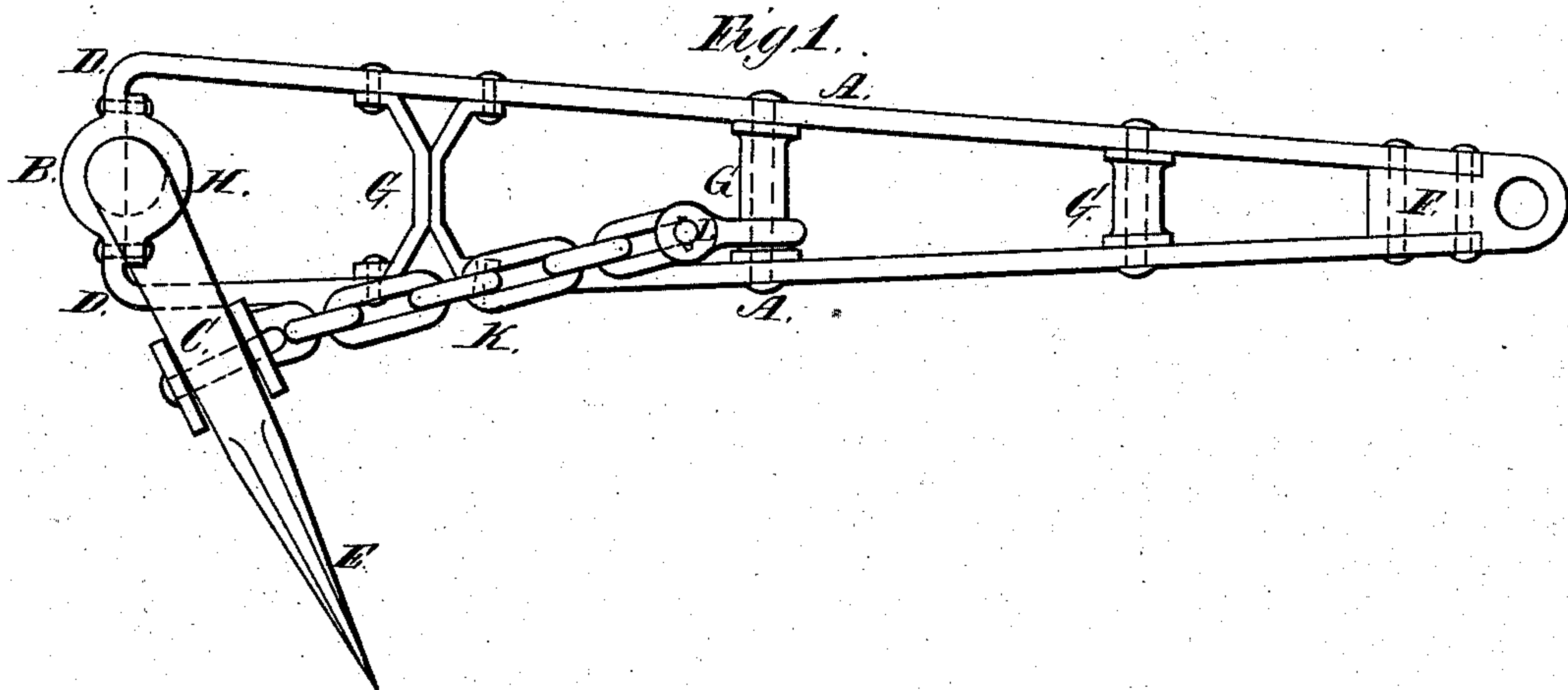


J. T. FEWKES.

Anchors.

No. 155,512.

Patented Sept. 29, 1874.



Attest:
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UNITED STATES PATENT OFFICE.

JOSEPH T. FEWKES, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. **155,512**, dated September 29, 1874; application filed February 13, 1874.

To all whom it may concern:

Be it known that I, JOSEPH T. FEWKES, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Anchors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation, and Fig. 2 a plan, of an anchor with my improvements applied.

The nature of my invention consists in the novel construction and combination of parts, substantially as hereinafter described, having reference particularly to the following points: First, the combination, with a self-canting pivoted fluke-bar, and a shank tapering or diminishing from above and below the the fluke-bearing in the end thereof, of a chain and pin, connecting said fluke-bar to the shank forward of the bearing, so that the fluke-bar will yield under extraordinary strain. Secondly, in angular shank, composed of a single unyielding bar, bent at the points D D to form a crown and two sides, the latter converging to the eye-piece, and fastened thereto, substantially as shown and described.

Referring to the accompanying drawing, A is the shank, formed of a bar, bent at D D, as shown, and at B, to form a semicircle, which, with the addition of a cap or box, H, forms a journal or bearing for the arm C, to which the flukes E are attached, said arm and flukes being forged out of a single piece. G G are studs or braces between the upper and lower bars of the shank A A, one of which forms a post for the attachment of the shackle L. M M are bars or shackles, attached to the flukes E E; and K K are chains, proceeding from said bars to the pin of the shackle L, said pin being of less strength than the chains. F is an eye-piece, riveted or bolted between the ends of the bar A A, forming the shank.

The box formed by the semicircular bend of the shank at B, and the cap H, are lined

with brass, or other non-corrosive metal that will not rust.

Owing to the formation of the shank, which has a greater depth at the crown, or between the points D D, than at the eye-piece F, with the fluke-bar C journaled equidistant between said points, the flukes will take hold under all circumstances, as their extremities will be below the lower bar A.

Were the shank A of a single piece of the same thickness or depth throughout, when it would lie flat upon the ground the flukes would be parallel therewith, and would not engage, as desired; but, with my construction, even if the shank be perfectly flat on the ground, the flukes will be at an angle therewith, sufficient to effect the desired engagement for anchorage. The shank also, being formed of an open-studded or braced bar, is much lighter than a solid shank would be, while it possesses fully as much, or more, strength.

The shackle-pin, at L, is made sufficiently strong to bear whatever strain is required to hold the vessel; but in order to save the anchor it is made so as to break at a somewhat less strain than at any other point.

When the shackle-pin breaks the flukes, being released, fall into a vertical position, allowing the anchor to be heaved up. By attaching another shackle the anchor is again ready for use.

Vessels are frequently injured in shoal-waters by anchors the flukes of which project above the shank. With this anchor there is no projection above the shank, and hence vessels are not liable to be injured by it. Finally, owing to the peculiar construction of the shank, and its combination with the swiveled fluke-arm, the flukes are certain to engage, when desired, without the employment of trippers, the expense and complication of which are thus dispensed with.

What I claim as my invention is—

1. The combination, with a self-canting pivoted fluke-bar, and a shank tapering or diminishing from above and below the fluke-bar bearing toward the point, of a stop-chain connecting said fluke-bar to the shank, and fastened to the latter by a pin, which will yield under extraordinary strain, and allow

the fluke-bar to turn back in its bearing, as and for the purpose specified.

2. The angular shank A, composed of a single unyielding bar, bent at the points D D to form a crown and two sides, the latter converging toward the eye-piece, and fastened thereto, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of February, 1874.

JOSEPH T. FEWKES.

Witnesses:

JNO. A. BELL,

M. DANL. CONNOLLY.