

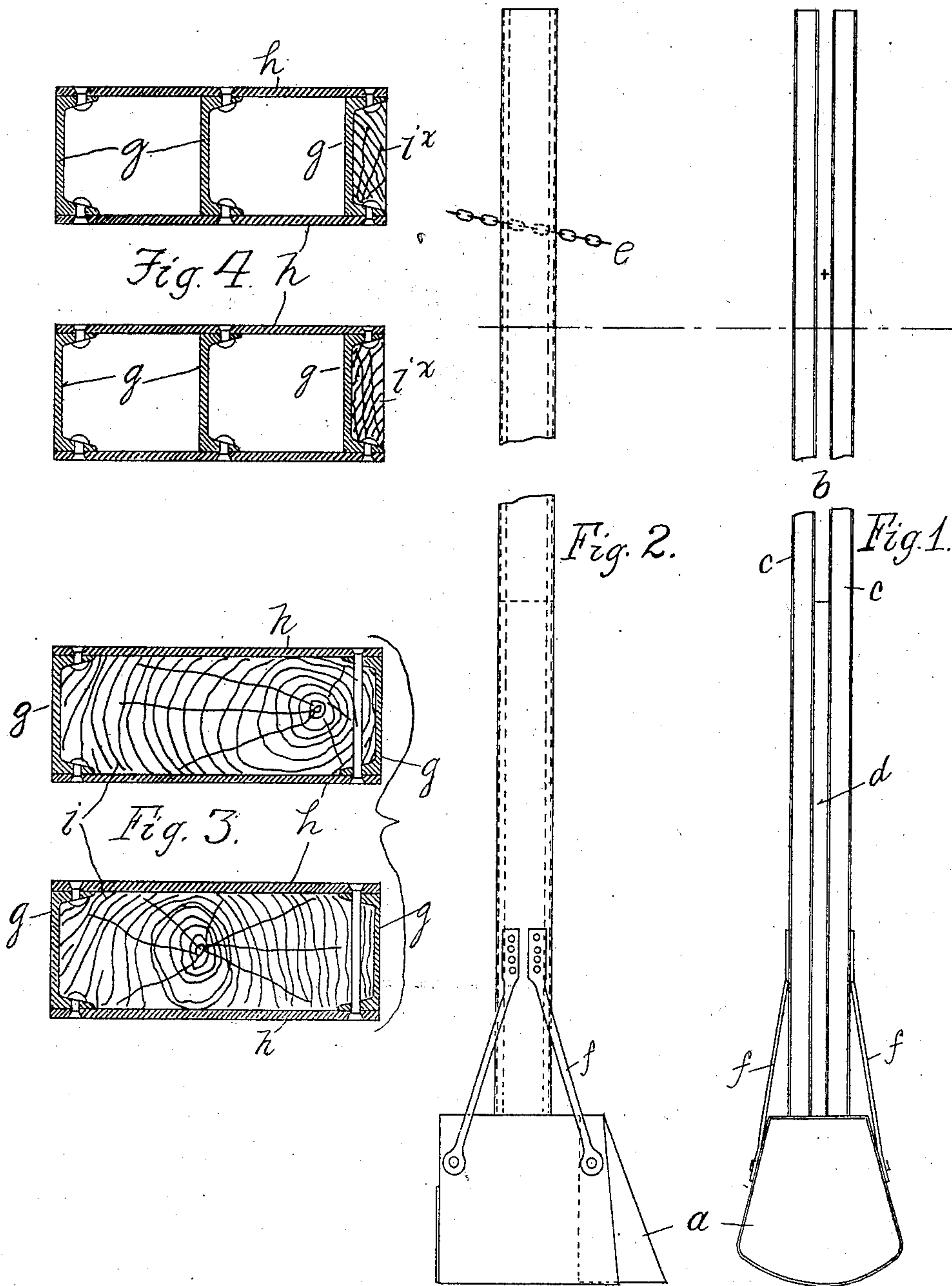
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PATENTED DEC. 1, 1903.

B. H. COFFEY.
DIPPER HANDLE.

APPLICATION FILED APR. 4, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

BARTON H. COFFEY, OF NEW YORK, N. Y., ASSIGNOR TO THE INTERNATIONAL CONTRACTING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

DIPPER-HANDLE.

SPECIFICATION forming part of Letters Patent No. 745,329, dated December 1, 1903.

Application filed April 4, 1902. Serial No. 101,328. (No model.)

To all whom it may concern:

Be it known that I, BARTON H. COFFEY, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented a certain new and useful Improvement in Dipper-Handles, of which the following is a specification.

This invention relates to the dipper-handles of excavating or dredging apparatus, land or marine, and has for its object the provision of a strong and durable handle that will not bend under the strains incident to its work and will last long or resist wear from clamps and guides.

Prior to the present invention dipper-handles of the class to which this invention relates have been made of one or two sticks of solid timber, according to the particular kind of apparatus they were to be used with, such sticks being long and squared in cross-section. Such handles have objectionable features, such as splintering or splitting, grinding up of the fibers where the clamps and guides act, and a rather short life, thus adding to the expense of operation.

In the practice of the present invention I sometimes take sticks of timber of suitable cross-section, rabbet them along two sides for the reception of the flanges of channel-irons, form a trough from two channel-irons and two sides of plate metal, place the stick in the same, and then put a second channel-iron in place and bolt the whole together, or I may replace the stick of timber by one or more channel-irons riveted to the side plates, thereby stiffening the latter against the crushing action of the guides and clamps commonly used in machines of the class to which this invention relates. The channel-irons are preferably each an integral iron; but compound or built-up channels may be used without departing from this invention.

The invention is illustrated in the accom-

panying drawings, forming part of this specification, in which—

Figure 1 is a front elevation, and Fig. 2 a side elevation, of a dipper-handle in which the invention is embodied. Fig. 3 is a cross-section of one form of the handle. Fig. 4 is a cross-section of another form of the handle forming the present invention.

In the drawings the reference *a* indicates a dipper or bucket, *b* the handle, which is formed of two parallel bars *c*, having a filler *d* between them for a distance up from the dipper *a*, and *e* is the usual chain.

Reference *f* designates rods by which the dipper is secured to the handle.

Each bar *c* comprises a plurality of channel-irons *g*, side plates *h*, riveted or otherwise secured to the flanges of the channels *g*, the rivet or bolt heads being by preference flush with the exterior surfaces, and a filler or strengthener within the box-like reinforce formed by the channels and plates. Such filler or strengthener may be a stick of timber *i*, as in Fig. 3, or a central channel-iron *g*, as in Fig. 4. It is remarked that when the box-form is filled, as in Fig. 3, the timber need not be a single stick sufficiently large to fill up the box; but it may be made up of side-by-side pieces held in place by suitable means, as bolts or through-rods. In case any of the channels have their flanges pointing outward, as in Fig. 4, the channel is filled with a piece of timber *i*^x, which is bolted or otherwise secured in place.

The invention may be embodied in forms other than those shown in the drawings and hereinbefore described.

What I claim is—

1. A dredging dipper-handle consisting of channel-irons, plates secured to the flanges thereof, and means for preventing transverse crushing thereof, substantially as described.
2. A dredging dipper-handle consisting of a plurality of parallel channel-irons, and metal

plates secured to the flanges thereof, substantially as described.

3. A dredging dipper-handle consisting of a stick of timber and wearing-irons along its angles and sides, substantially as described.

5 4. A dredging dipper-handle consisting of a plurality of parallel channel-irons, metal plates secured to the flanges thereof, and a timber-filling inclosed by said channels and
10 plates, substantially as described.

Signed at New York, in the county of New York and State of New York, this 2d day of April, A. D. 1902.

BARTON H. COFFEY.

Witnesses:

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