

(No Model.)

3 Sheets—Sheet 1.

J. BROWN.

DISENGAGING HOOK, LINK, CHAIN, SLING, BUCKET, AND SKEP.

No. 250,779.

Patented Dec. 13, 1881.

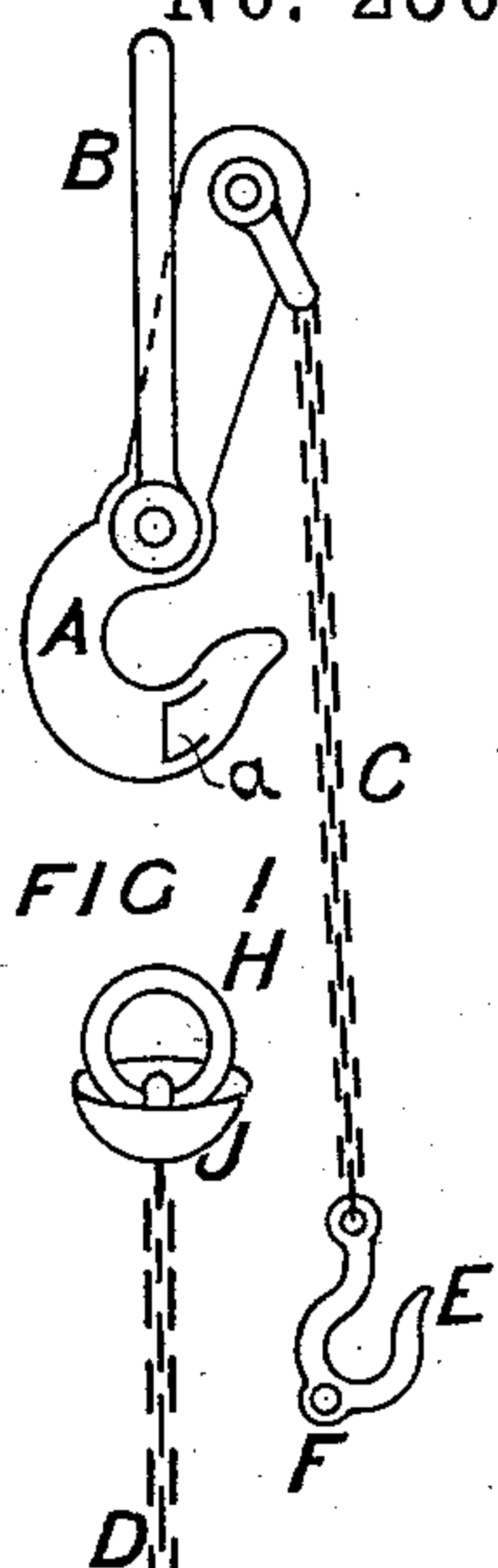


FIG 4

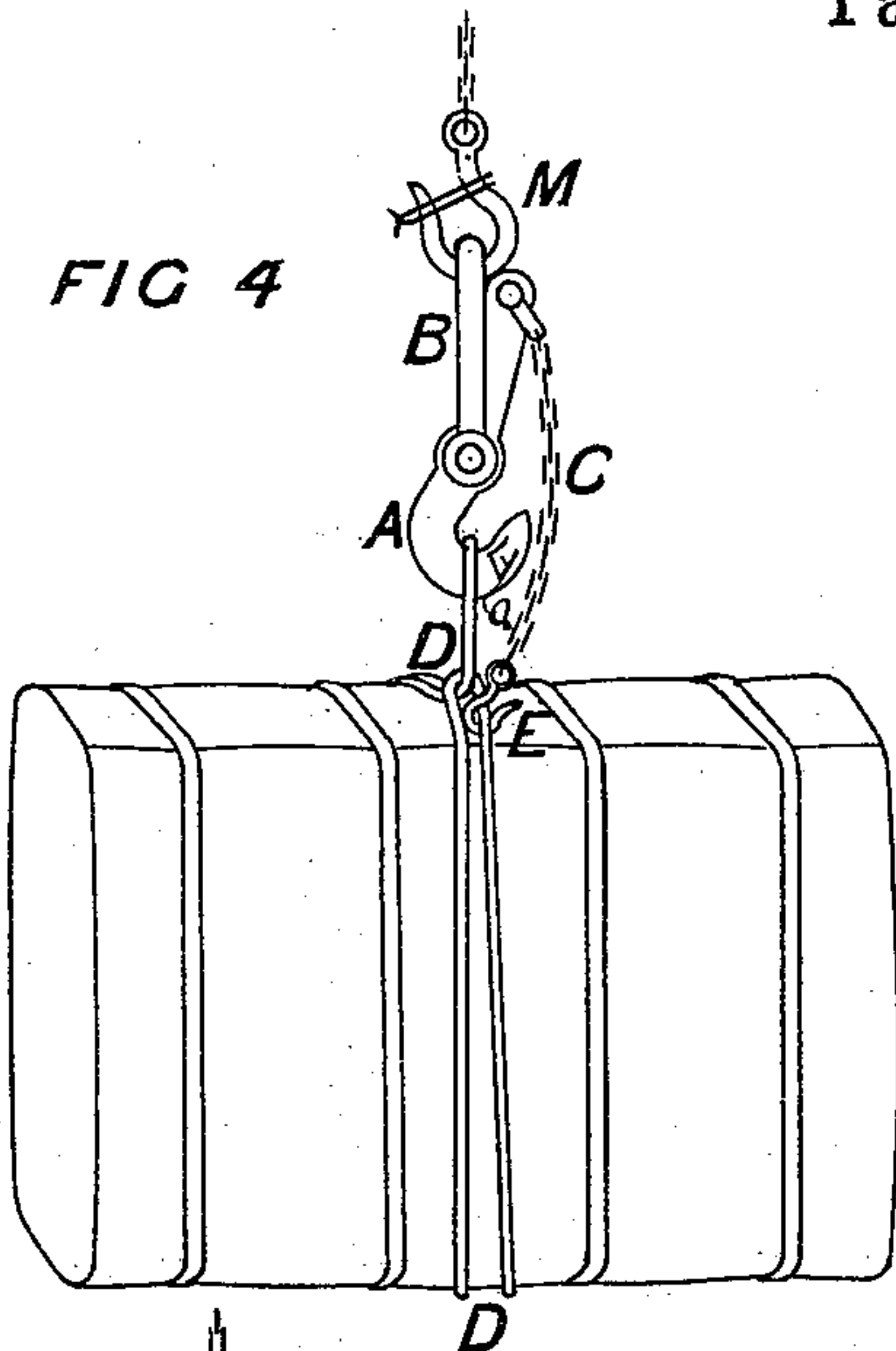


FIG 2

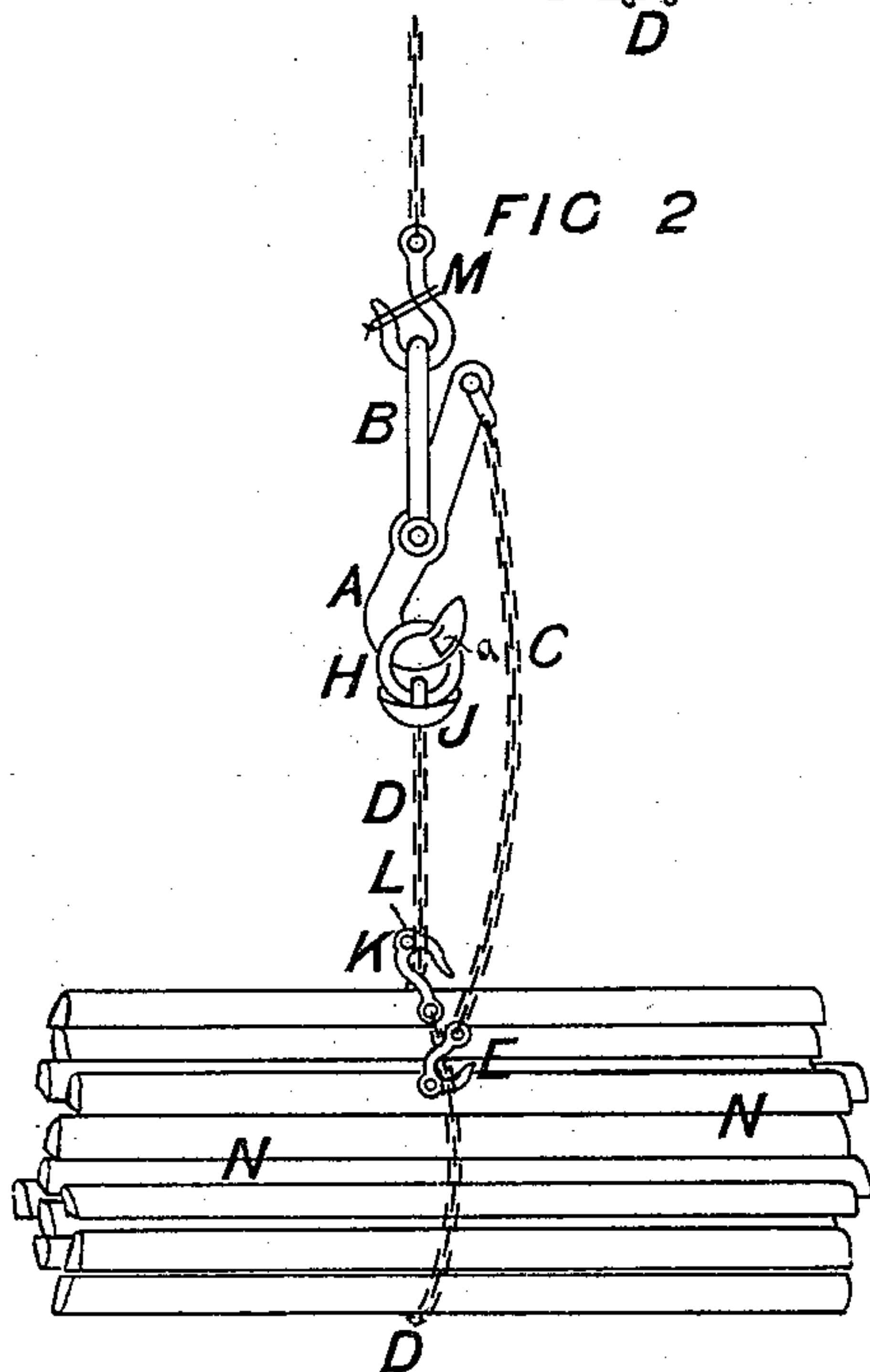
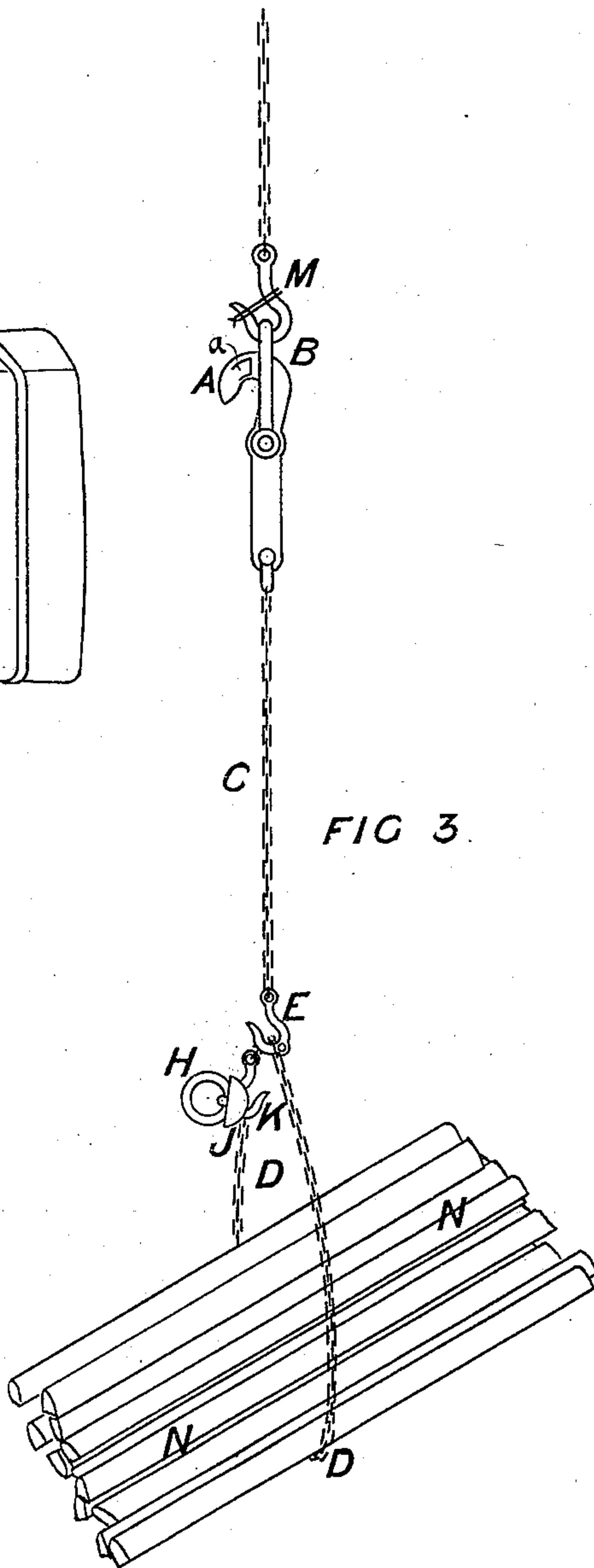


FIG 3



WITNESSES
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Attorney

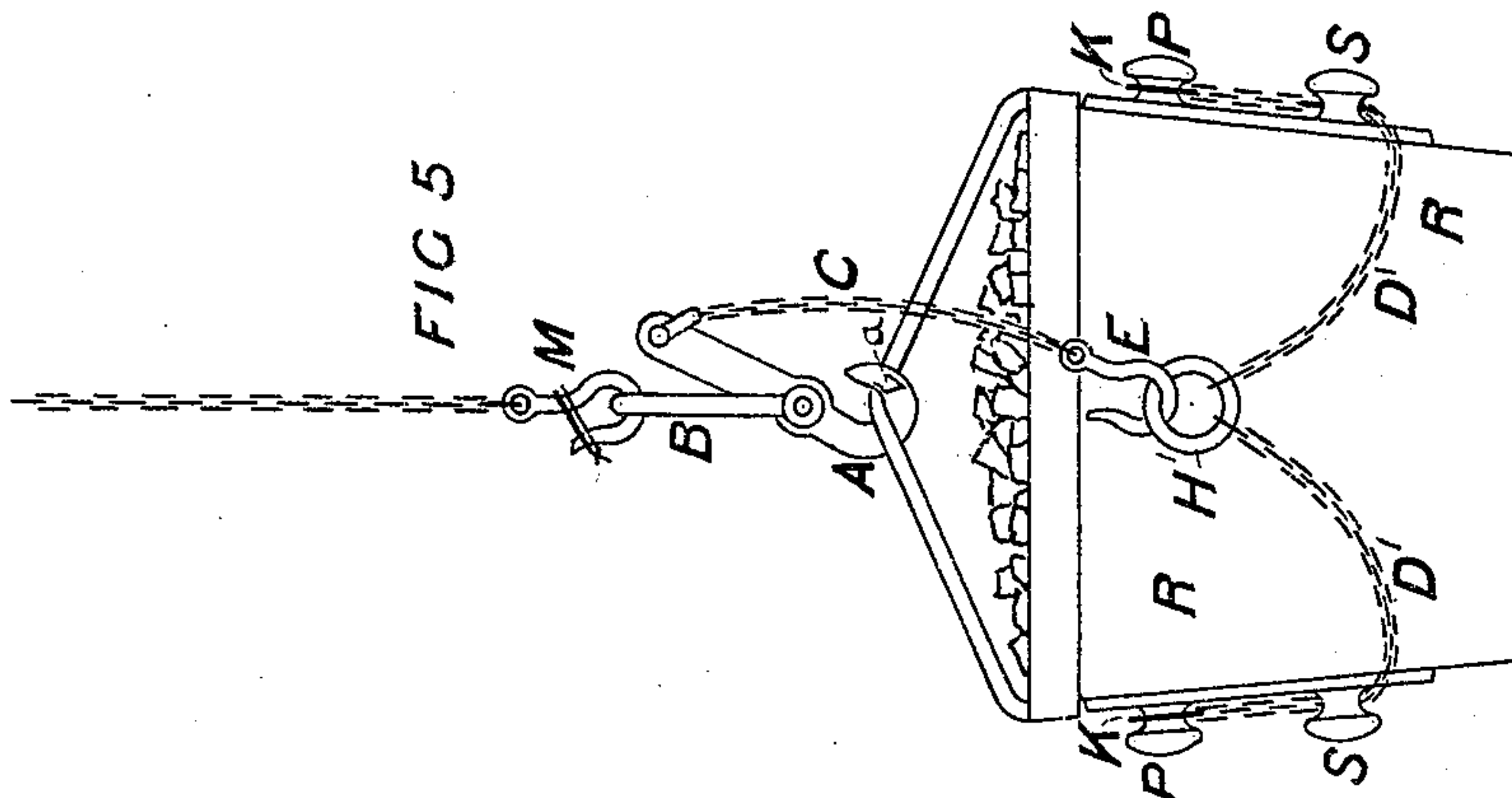
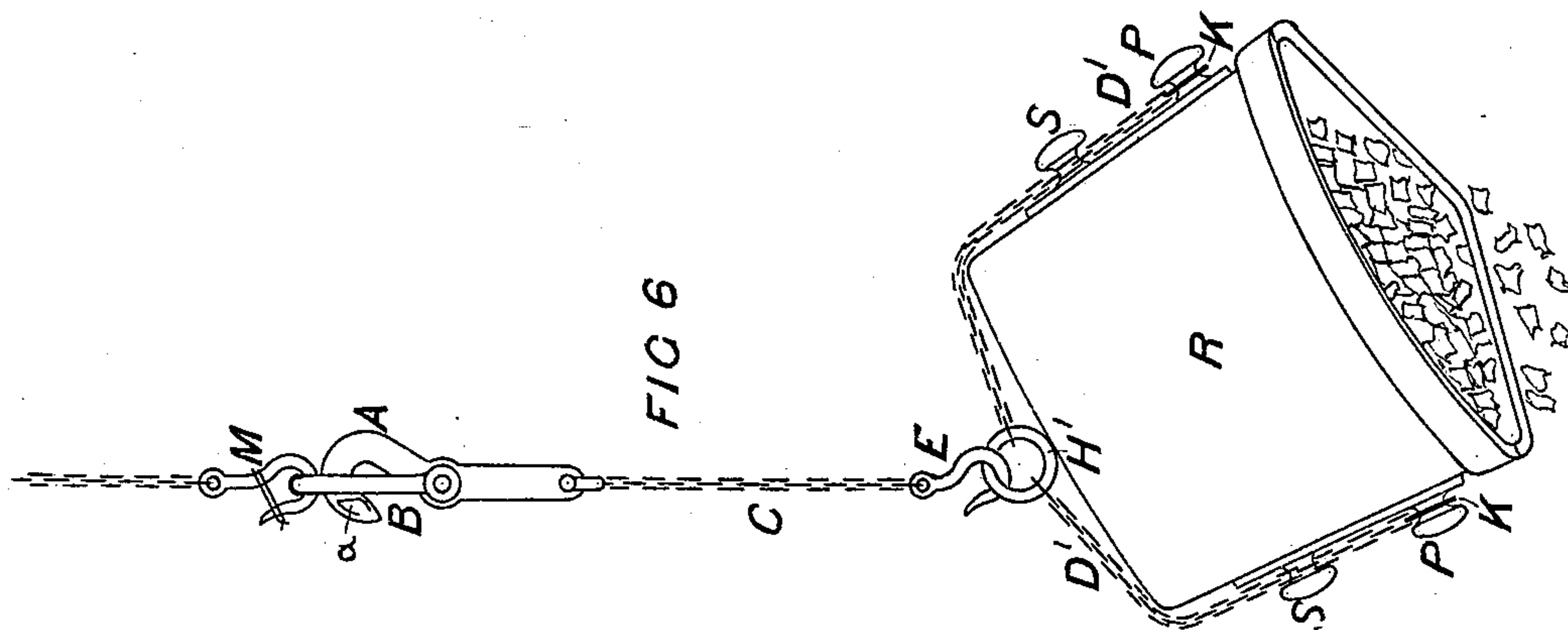
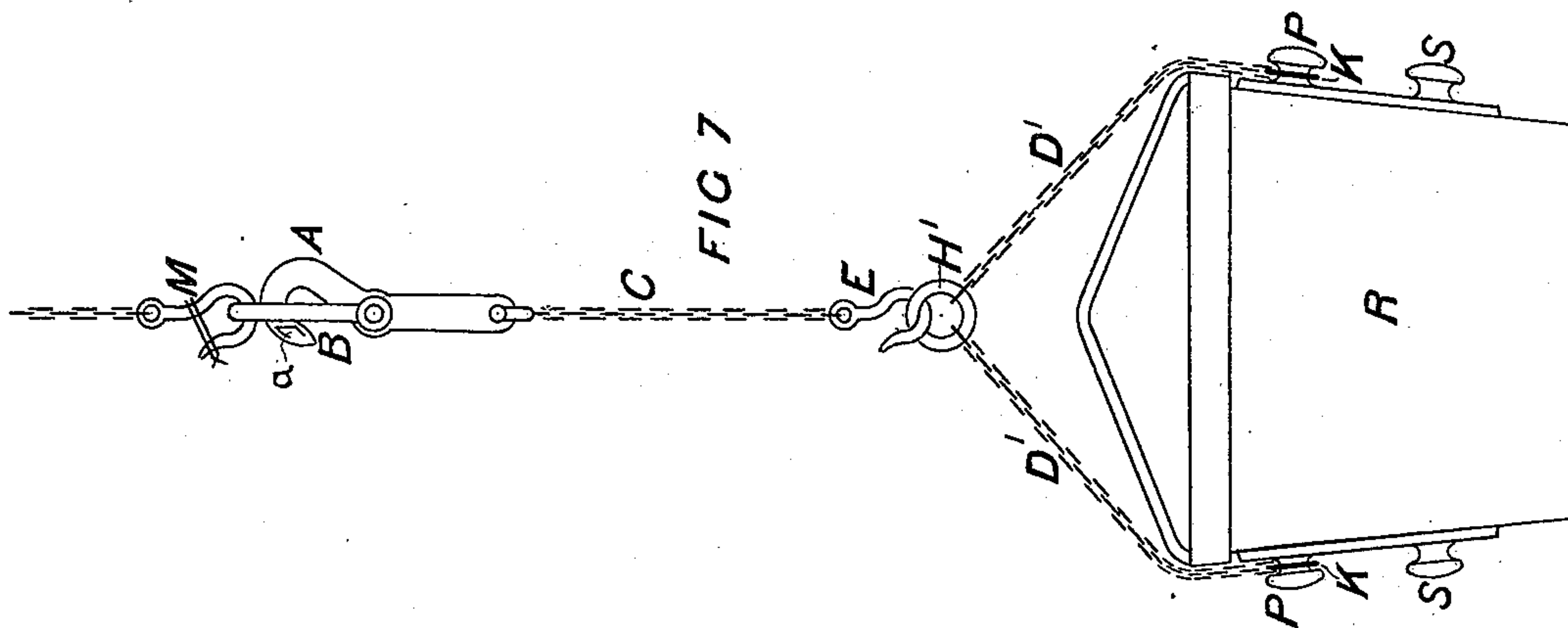
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WITNESSES

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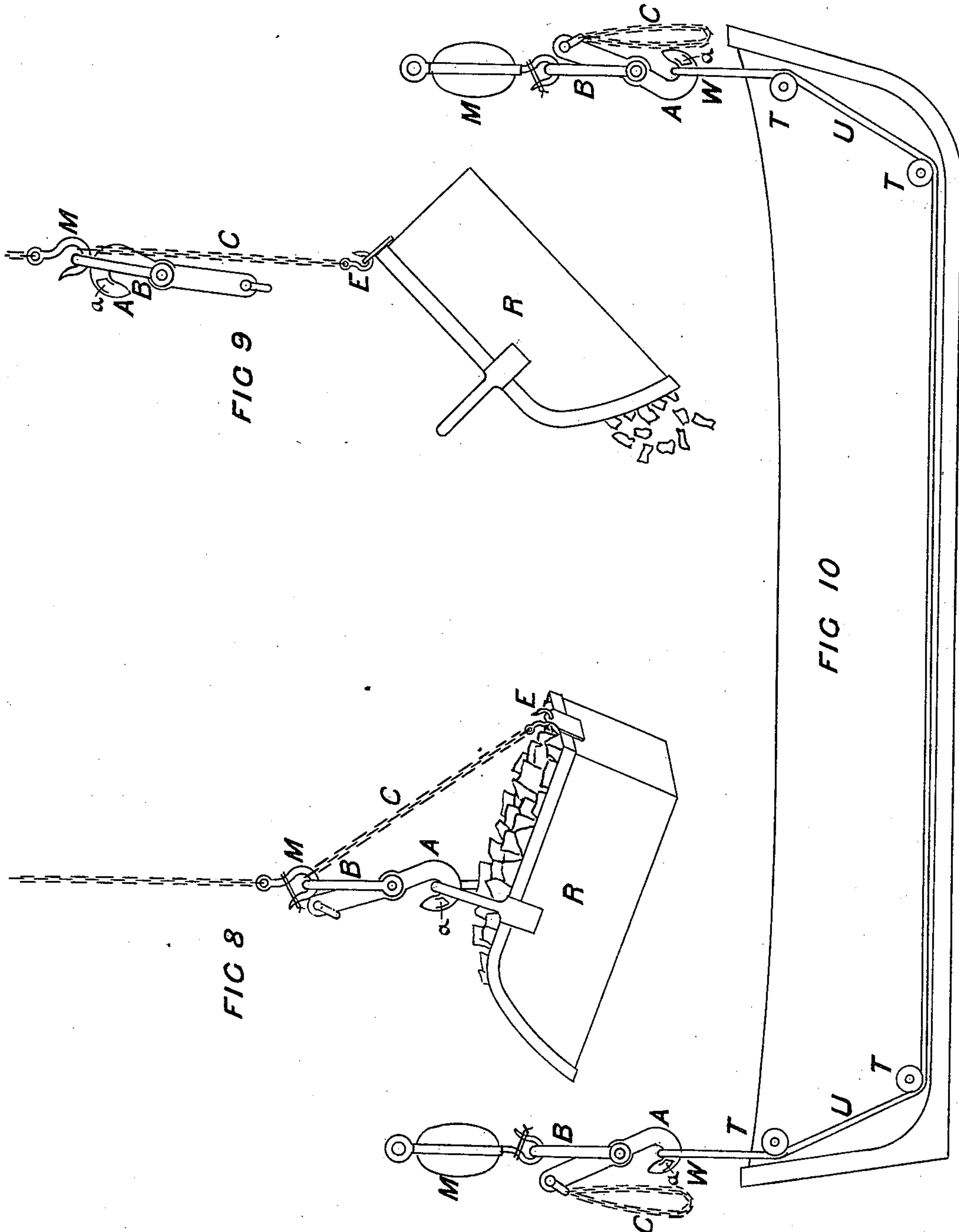
INVENTOR

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Amos Broadbent

(No Model.)

3 Sheets—Sheet 3.

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No. 250,779.
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UNITED STATES PATENT OFFICE.

JAMES BROWN, OF LIVERPOOL, COUNTY OF LANCASTER, ENGLAND.

DISENGAGING HOOK, LINK, CHAIN, SLING, BUCKET, AND SKEP.

SPECIFICATION forming part of Letters Patent No. 250,779, dated December 13, 1881.

Application filed August 15, 1881. (No model.) Patented in England December 22, 1880.

To all whom it may concern:

Be it known that I, JAMES BROWN, a subject of the Queen of Great Britain, a resident of the city of Liverpool, in the county of Lancaster, in that part of the United Kingdom of Great Britain and Ireland called England, have invented a certain new and useful Disengaging Hook, Link, Chain, Sling, Bucket, and Skep, (for which I have obtained a patent in Great Britain, bearing date the 22d day of December, 1880, No. 5,370;) and I do hereby declare that the following is a full, clear, and exact description of the invention, sufficient to enable others skilled in the art to which it appertains to make and use the same, reference being had to the three sheets of drawings making a part of this specification.

My invention consists, essentially, of the novel combination of hook, link, chain, and sling illustrated at Figure 1; and Figs. 2, 3, 4, 5, 6, 7, 8, 9, and 10 show various examples of its application.

Referring to the drawings, A is the hook; B, the link; C, the chain, and D the sling. It will be seen that the hook A is attached to the link B, and has connected to its shank end the pendent chain C. The hook A is provided with a stop, *a*, to prevent the hook being turned the wrong way round through the link B. The end of the pendent chain C is supplied with a hook, E, with an eye in its bend at F. The length of chain D, with the ring H and the cup J at one end and the hook K with the eye L at the other end, forms the sling.

In the practice of my invention the link B with the tumbling-hook A is hooked over or suspended from the hook or chain of the crane or other hoisting or lowering apparatus to which it is applied. For example, it is passed over the hook M, as shown at Figs. 2, 3, 4, 5, 6, 7, 8, 9, and 10 of the drawings. The sling D is passed round the article or articles to be lowered, and the hook K of the sling D is hooked round the sling-chain, forming a running noose. The ring H on the sling-chain is then hooked onto the tumbling-hook A, and the hook E on the pendent chain C is hooked through the noose of the sling or into the eye L on the hook K. The action is, for example,

(reference to Figs. 2 and 3:) The sling D being filled with a bundle of pig-iron, N, the tumbling-hook A being attached to the sling, and likewise the pendent chain C being hooked through the sling, in manner shown at Fig. 2, the bundle N is raised and lowered. The instant the lowering action is arrested, and the bundle is deposited on the ground or other receiver, the tumbling-hook A automatically disengages itself from the ring H of the sling D, and upon the hoisting or hauling of the crane-chain the sling D is automatically disengaged from the bundle. When the hook E is passed through the running noose the gear, when disengaging, takes the position shown at Fig. 3. When the hook E is passed through the eye L the sling entirely disengages and the sling is brought up on end.

Where it is desired to weigh pig-iron or like articles the sling D, through its cup J and hook K, keeps the bundle together during the weighing operation, after which it can be again lifted, discharged, and tipped by attaching the hook K to any convenient part of the sling D.

For lifting and disengaging bales and the like the bale is slung as illustrated at Fig. 4, and is lowered onto some article, so that it is slightly raised at one or both ends to allow of the sling-chain D, or the ordinary rope-sling illustrated, being drawn from under.

Figs. 5, 6, and 7 illustrate the application of my invention to buckets or tubs. Fig. 5 illustrates raising or lowering. Fig. 6 illustrates discharging. Fig. 7 illustrates returning empty. In this case, by placing the studs P and S on the tub R, and attaching to the studs P the sling D', it will be seen that the tub R forms part of the sling D.

The operation will be clearly understood upon reference to Figs. 5, 6, and 7.

Figs. 8 and 9 illustrate my invention as used with skeps or scoop-tubs. Fig. 8 illustrates raising or lowering, and Fig. 9 illustrates discharging. In this case the tub R forms its own sling, and the pendent chain C is preferably hooked onto the hook M, as shown.

My invention is particularly applicable for taking in and discharging cargo on board ship, and has this further utility that when the ship is at sea the tumbling-hooks A can be applied

independently as a boat-lowering apparatus, in the manner shown at Fig. 10. In this case I fit the ends of the boat with the sheaves T, and I pass a length of rope, U, through these 5 sheaves. This rope U has an eye, W, at each end, which takes over the tumbling-hook A, as shown.

In operation when the boat is water-borne the hook A automatically disengages, and the 10 boat is liberated.

Having now described my invention and shown the operation thereof, I claim—

The combined disengaging hook, link, chain, sling, bucket, and skep, and the methods of operating the same, herein set forth, and shown 15 in the drawings hereto annexed.

In witness whereof I, the said JAMES BROWN, have hereunto set my hand this 5th day of July, in the year of our Lord 1881.

JAMES BROWN.

Witnesses:

FREDERICK JOHN CHEESBROUGH,

JOHN HAMILTON REDMOND,

Both of 15 Water Street, Liverpool, England.