

(No Model.)

J. McSPIRIT.

PICK ATTACHMENT FOR DREDGE BUCKETS.

No. 324,573.

Patented Aug. 18, 1885.

Fig: 1.

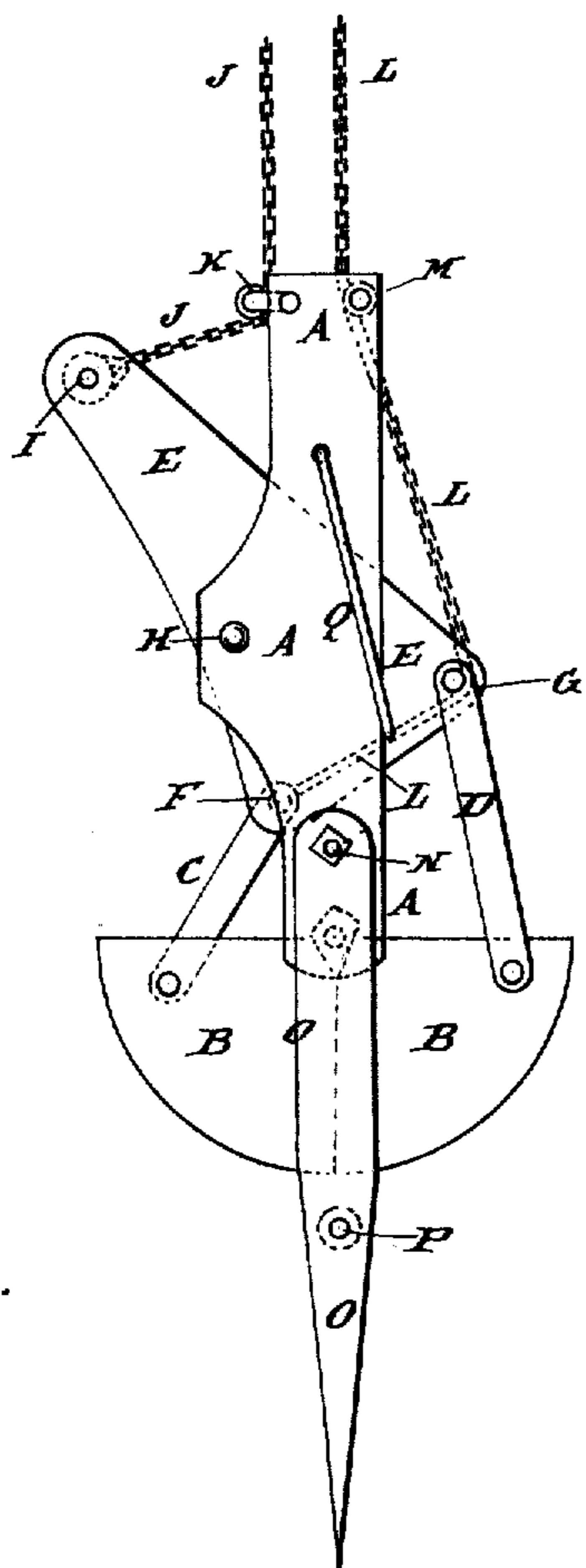


Fig: 2.

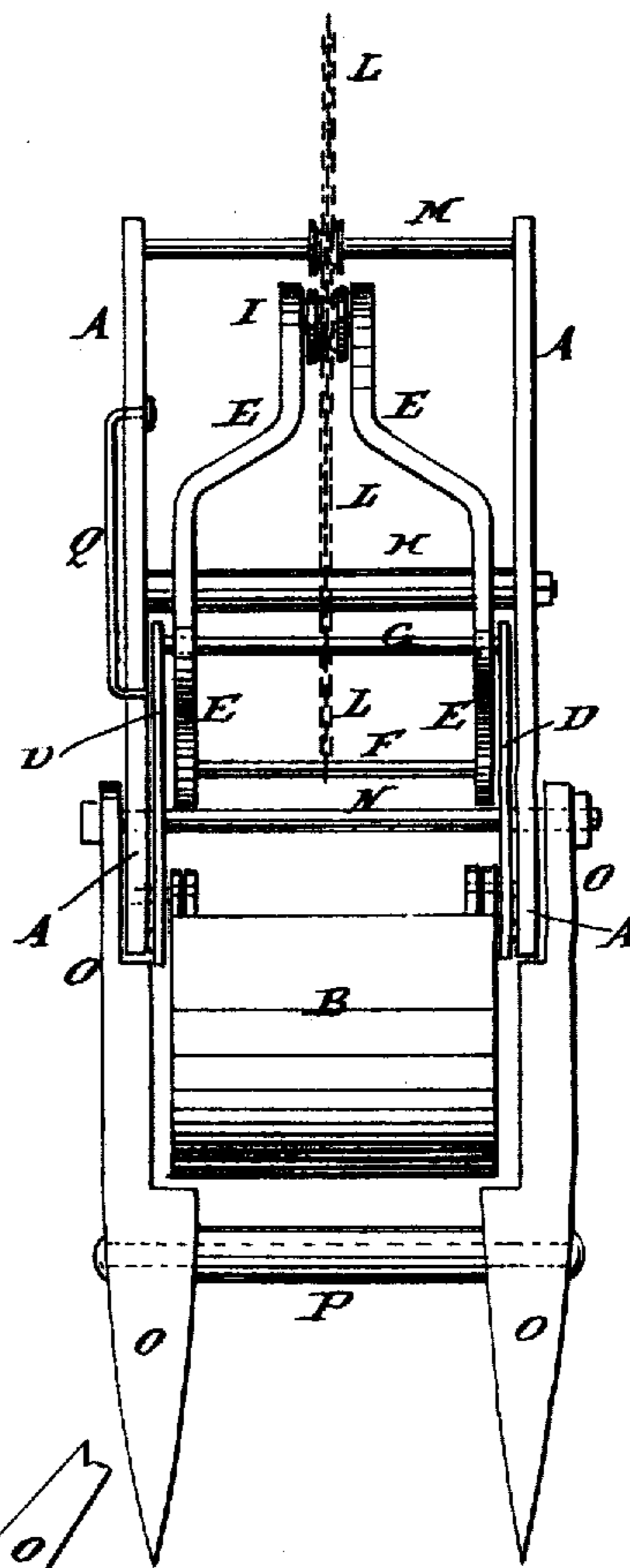
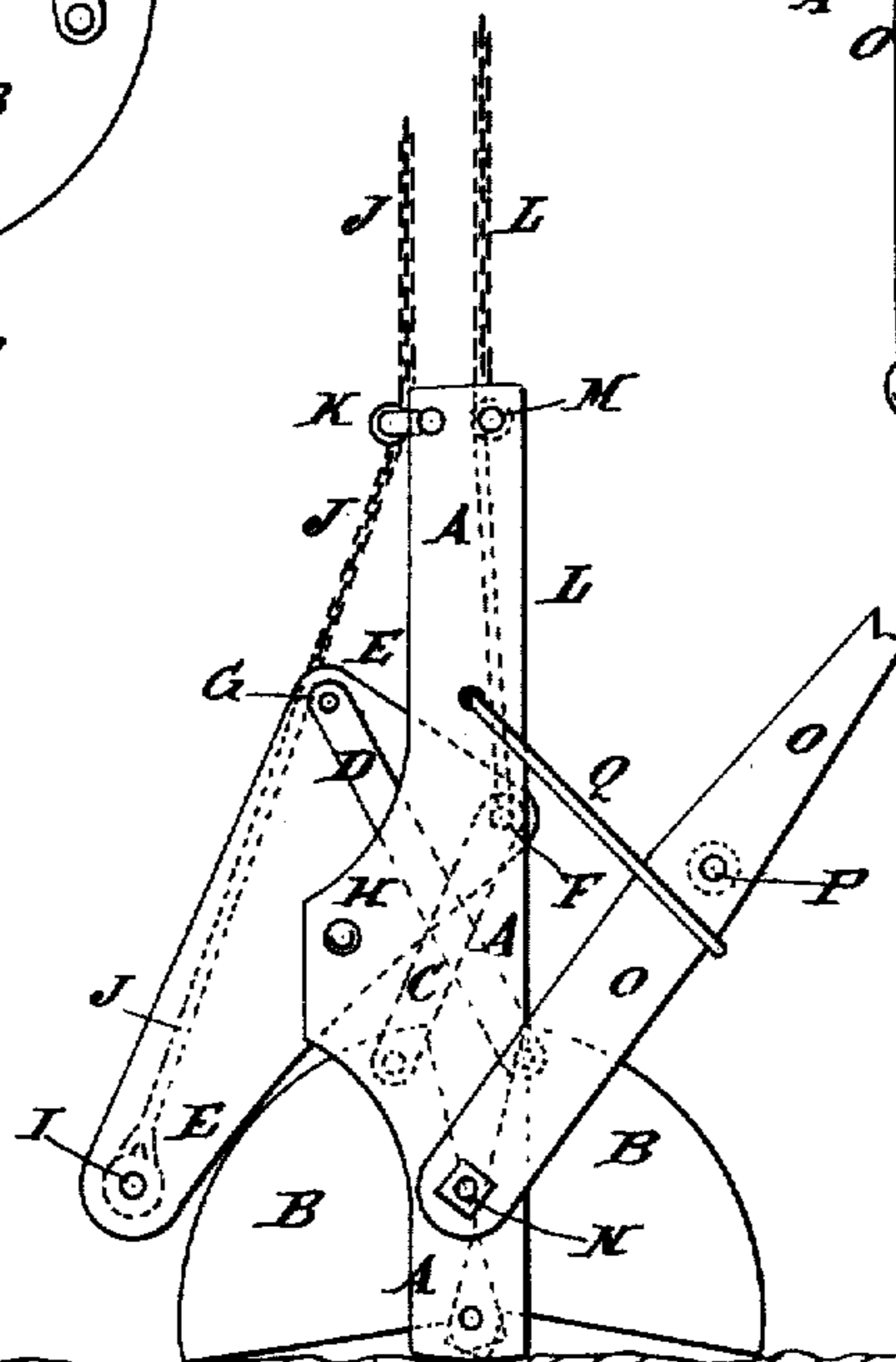


Fig: 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN McSPIRIT, OF JERSEY CITY, NEW JERSEY.

## PICK ATTACHMENT FOR DREDGE-BUCKETS.

SPECIFICATION forming part of Letters Patent No. 324,573, dated August 18, 1885.

Application filed June 8, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN McSPIRIT, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and  
5 useful Improvements in Pick Attachments for Dredge-Buckets, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in  
10 which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a dredge-bucket to which my improved attachment has been applied. Fig. 2 is a front elevation  
15 of the same. Fig. 3 is a side elevation of the same arranged for use as a dredge-bucket.

The object of this invention is to provide pick attachments for dredge-buckets for loosening hard ground, so that it can be grasped  
20 and raised by the dredge-buckets, and which shall be constructed in such a manner that they can be readily turned up out of the way when the buckets are to be used for dredging.

The invention consists in the combination  
25 of the parts of the attachment with the frame of the dredge-bucket, as will be hereinafter fully described and then claimed.

A is the frame of the dredge-bucket. To the lower ends of the side bars of the frame A are  
30 pivoted lugs formed upon the inner corners of the buckets B.

To the ends of the buckets B, near their outer corners, are pivoted the lower ends of the connecting-bars C D, the upper ends of  
35 which are pivoted to the corners of the wide ends of the levers E by cross-bars F G. The levers E at one side of their middle parts are pivoted by a round, H, to projections formed upon the middle parts of one side edge of the  
40 side bars of the frame A. The narrow ends of the levers E are curved toward each other and are connected by a short rod, I, to which or to a pulley attached to it is attached the  
45 end of the hoisting-chain J. The hoisting-chain J passes around the rod K, connecting the corners of the upper ends of the side bars of the frame A, and passes thence to the der-  
rick-arm.

To the cross-bar F of the levers E, or to a  
50 pulley attached to the said cross-bar, is attached the end of the lowering-chain L, which passes

around the cross-bar G, or a pulley placed upon the said cross bar passes around the cross-bar M connecting the other corners of the upper ends of the side bars of the frame A, or a  
55 pulley placed upon the said cross-bar M, and passes thence to the derrick-arm.

With this construction the first effect of tension upon the chain J, by means of which the dredge-buckets are raised, is to close the said  
60 buckets and the first effect of tension upon the chain L, by means of which the dredge-buckets are lowered, is to open the said buckets, each chain being always slackened when the  
65 other is drawn upon.

As thus far described there is nothing new in the construction.

To the ends of the cross-bar N that connects the lower ends of the side bars of the frame A are pivoted the upper ends of two picks, O,  
70 which are connected a little below the buckets B, when closed, by a cross-bar, P. The picks O are made large and heavy, and their lower ends are tapered to a point, as shown in Figs. 1 and 2.  
75

When the picks are not in use, they are turned into an upwardly-inclined position, and are secured in said position by a hook, Q,  
80 pivoted to one of the side bars of the frame A, and hooked upon one of the picks O, as shown in Fig. 3.

When using the dredge-bucket as a pick, it is lowered by means of the hoisting-chain J, so that the buckets B will be held closed, and the weight of the said bucket forces the picks  
85 into the hard ground at the bottom of the water, and as the chain J continues to slacken the weight of the bucket pulls the picks O over sidewise, and thus loosens the ground. The bucket is then raised for a little distance,  
90 moved a little to one side, and again lowered to loosen some more of the ground, and so on. When a sufficient quantity of ground has been loosened, the dredge-bucket is raised, the picks  
95 O are swung up and secured by the hook Q, and the dredge-bucket is used in the ordinary manner for raising the ground loosened by the picks O.

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

1. The combination, with the frame A of a

dredge-bucket, of the pivoted picks O and their connecting-bar P, substantially as herein shown and described, whereby a dredge-bucket can be used as a pick to loosen hard ground at the bottom of water, as set forth.

5 2. The combination, with the frame A of a dredge-bucket, and the picks O, pivoted to the said frame, of the hook Q, substantially

as herein shown and described, whereby the said picks can be supported out of the way when not required for use, as set forth.

JOHN McSPIRIT.

Witnesses:

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THOMAS SHORTELL.