

(No Model.)

2 Sheets—Sheet 1.

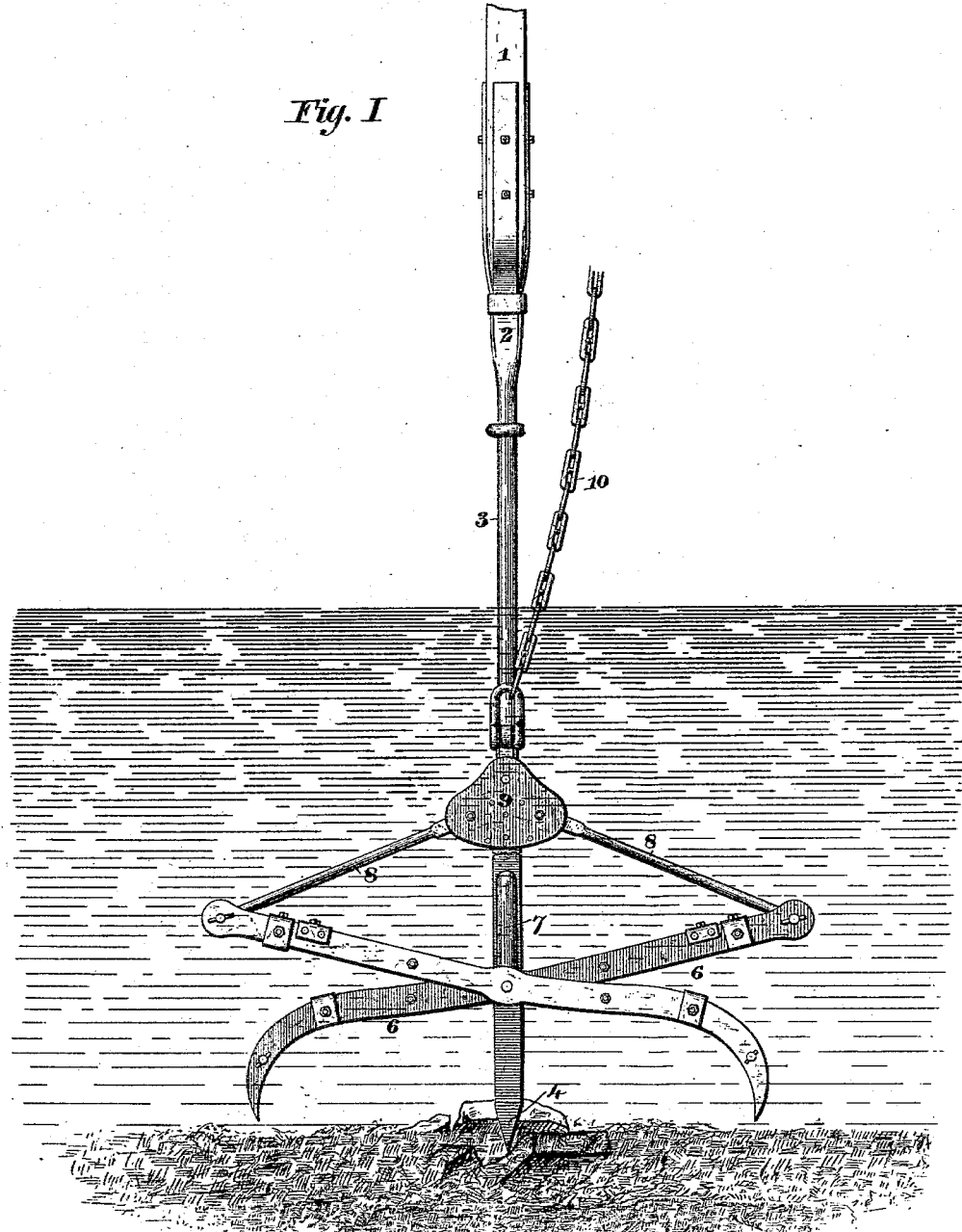
C. A. SCANLAN.

ROCK BREAKER AND DREDGER.

No. 290,482.

Patented Dec. 18, 1883.

*Fig. 1*



*Witness*

*J. Henry Kaiser.  
Geo. T. Smallwood.*

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Fig. II.

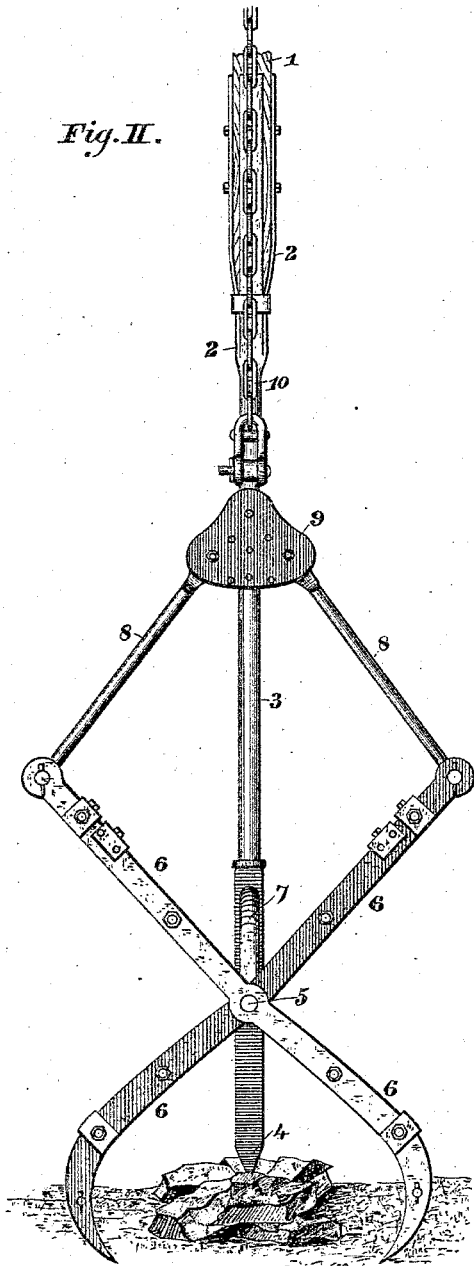
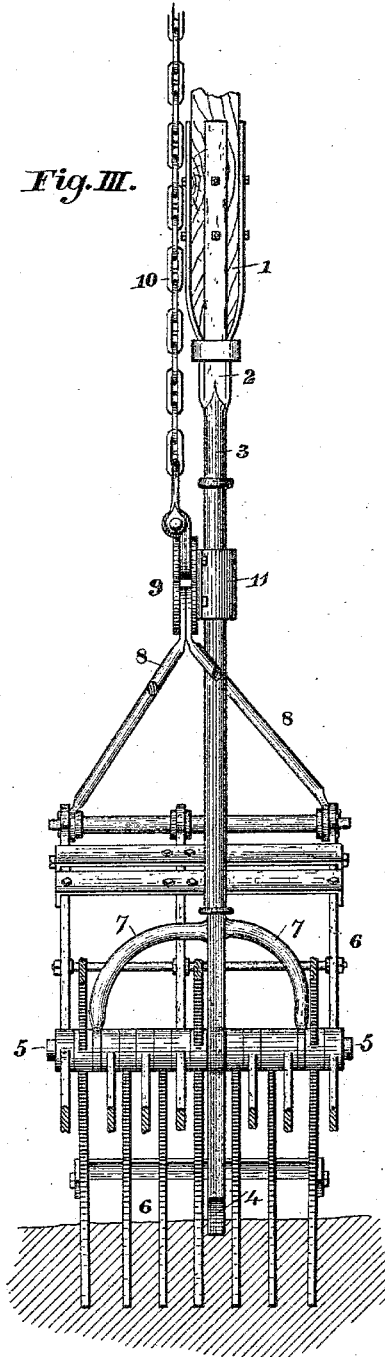


Fig. III.



Attest:

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# UNITED STATES PATENT OFFICE.

CHARLES A. SCANLAN, OF CHARLESTON, SOUTH CAROLINA, ASSIGNOR OF ONE-THIRD TO JOHN G. SMITH, OF SAME PLACE.

## ROCK-BREAKER AND DREDGER.

SPECIFICATION forming part of Letters Patent No. 290,482, dated December 18, 1883.

Application filed September 6, 1883. (No model.)

### *To all whom it may concern:*

Be it known that I, CHARLES A. SCANLAN, a citizen of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Rock-Breakers and Dredgers, of which the following is a specification.

My improvement relates especially to those apparatus employed in dredging phosphate rock; and it consists in the combination, with tongs and hoisting apparatus therefor, of a heavy bar employed for the purpose of breaking the rock and holding the apparatus fixedly in position until the tongs are closed, as hereinafter set forth.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a side elevation of my improved breaker and dredger, the tongs being opened. Fig. II is a similar view with tongs closed. Fig. III is a vertical sectional view in the plane indicated by the line III III, Fig. II.

1 represents the shaft of my improved dredger, preferably made of wood, and fitting at its lower end in a socket, 2, upon the upper end of a bar, 3. Said bar is provided with a chisel-shaped end, 4, and supports the pivot-pin 5 of the tongs 6. Braces 7 from the bar 3 to the said pivot-rod serve to further strengthen the connection between the bar and tongs. The connecting-rods 8 to a head-block, 9, admit of the closing of the tongs when said head-block is lifted by means of chain 10 from the dredge. A strap, 11, fixed to the head-block,

surrounds the bar 3, to guide the said block in a path parallel with the said bar.

It will be seen by reference to Fig. I that when the tongs are open to their fullest extent, as when the dredger is being lowered into the water, the chisel-pointed end 4 of the bar 3 will project considerably below the outer line of the tongs—in practice about eight inches—and the dredger being let fall with considerable force, the end 4 thus serves as a rock-breaker, and also serves to fix and steady the dredger in place until, by the lifting of the chain 10, the tongs are closed, and any material inclosed therein is tightly seized.

The lower end of the bar 3 may, if desired, be bifurcated, so as to have two chisel-shaped ends, to be employed in a manner similar to the one here shown.

I am aware that Letters Patent No. 201,427 show a clam-shell dredger having at each side a downwardly-projecting series of teeth for chipping off pieces of the rock. This, therefore, I do not claim.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

The improved rock-breaker and dredger, consisting of tongs 6, having suitable means for closing and hoisting the same, in combination with shaft 1, and bar 3, having chisel-shaped end 4, projecting below the teeth of the tongs, for the purpose set forth.

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Witnesses:

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