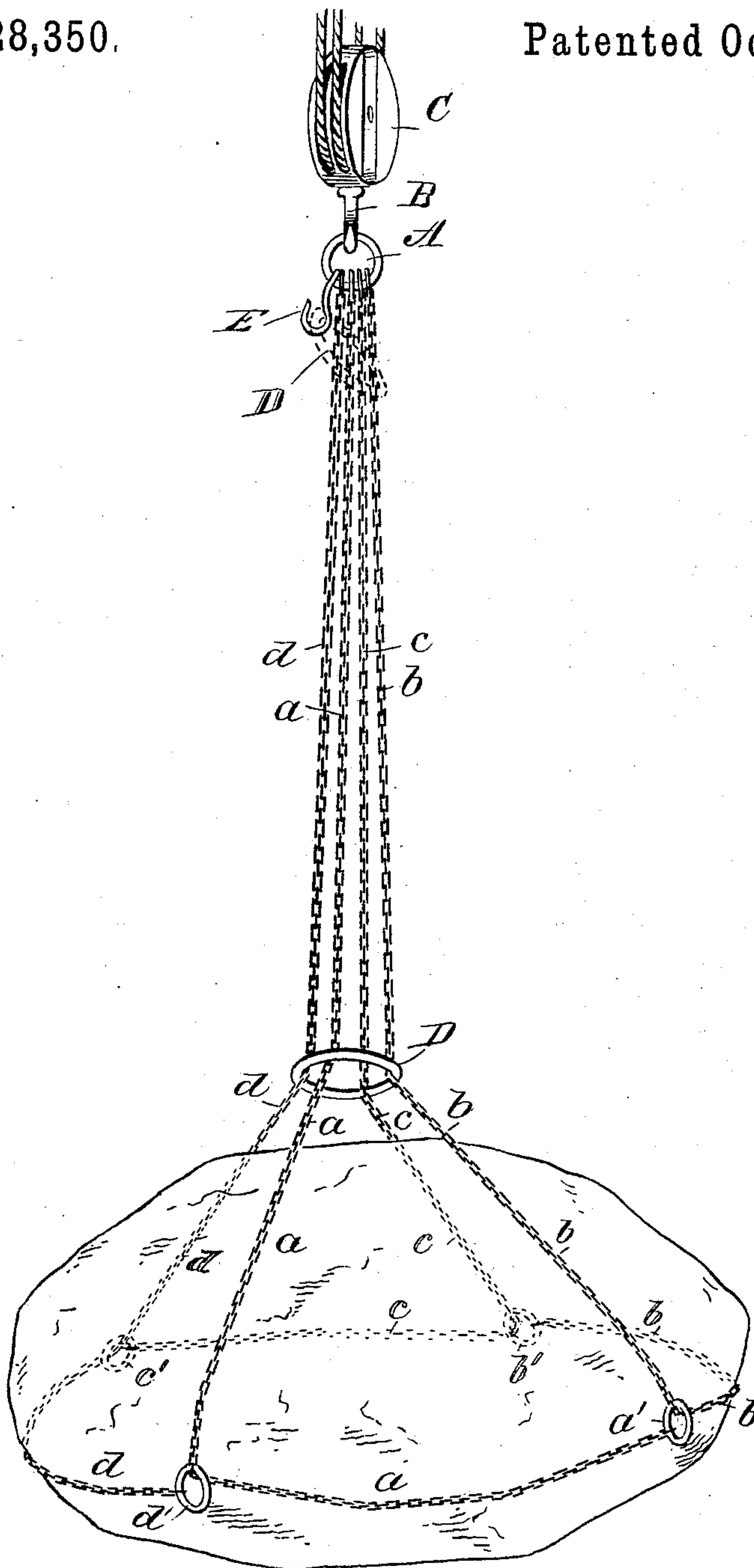


(No Model.)

W. SMITH.
SELF ADJUSTING CHAIN SLING.

No. 328,350.

Patented Oct. 13, 1885.



WITNESSES:

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WILLIAM SMITH, OF BROOKLYN, ASSIGNOR TO FREDERICK MASKIELL, OF
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SELF-ADJUSTING CHAIN SLING.

SPECIFICATION forming part of Letters Patent No. 328,350, dated October 13, 1885.

Application filed September 11, 1885. Serial No. 176,732. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SMITH, of Brooklyn, in the county of Kings and State of New York, have invented a new and
5 Improved Self-Adjusting Chain Sling, of which the following is a full, clear, and exact description.

My invention relates to the construction of a chain sling designed more particularly for
10 use in grappling submarine rocks, but being also applicable for slinging boxes or barrels that are to be moved from story to story; and to these ends the invention consists of a number of chains, preferably four, that are con-
15 nected at their upper ends with a ring and carry smaller rings at their lower ends, each chain being arranged to pass through the lower ring of one of its neighboring chains; but all the chains in the sling pass through
20 the rings of chains that are upon the same side.

Reference is to be had to the accompanying drawing, forming a part of this specification, which is a perspective view of my improved
25 chain sling, representing the same as in position to elevate a rock.

Four chains, *a*, *b*, *c*, and *d*, that are equal in length, are fixed or secured to a heavy upper ring, A. The chains referred to carry
30 links or rings *a'*, *b'*, *c'*, and *d'*, respectively, said rings or links being secured to the lower ends of the chains. Each of the chains passes through the lower link or ring of the chain to its right or left—that is, the chain *a* passes
35 through the link *d'*, the chain *b* through the link *a'*, the chain *c* through the link *b'*, and the chain *d* through the link *c'*—or the chains could be passed through the links of the chains upon their opposite sides.

40 The ring A is hooked upon the hook B of the block C, which constitutes a portion of the ordinary form of hoisting-tackle.

When it is desired to remove submarine rocks or obstructions, a diver is employed to
45 adjust the sling, which he does by pulling the chains through the rings or links through which they pass until he has formed a loop large enough to encircle the rock or other obstruction, which loop he passes over the

article to be removed, allowing the loop to 50 rest upon the bottom at the sides of the article. The tackle is then started to slightly elevate the sling until all slack is drawn up, when it will be found that the lengths of chains projecting through the links and forming the loop about the rock or other article to be moved will be drawn up tight against the under sides of the rock, so that when the tackle is operated to raise the sling the rock will be firmly held and may be raised to the surface 60 and deposited as the operator desires.

If it is desired to secure the chains more closely about the rock, I provide a ring, D, which, when not in use, is suspended from a hook, E, that is carried by the ring A, as 65 shown in dotted lines; but when it is necessary to tighten the chains about the sides of the rock the ring D is forced down to the position shown in full lines, this being done before the slack is taken out of the chains. 70

Although I have illustrated and described the sling as being composed of four chains, it might be made with only three, or in some cases the number of chains might be increased to five or six or more, and it will readily be 75 seen that the sling could be used for hoisting boxes and barrels, as well as rocks.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 80

1. A chain sling consisting of a number of chains united to an upper link or ring, each chain carrying a link or ring at its lower end, and each chain passing through the link carried by the adjacent chain upon one side, substantially as described. 85

2. In a chain sling, the combination, with a number of chains united to an upper link or ring, each chain carrying a link or ring at its lower end, and each chain being passed through 90 the lower link of the chain to the right or left, all chains, however, passing through links in the same direction, of a ring, D, substantially as described.

WILLIAM SMITH.

Witnesses:

ROE H. SMITH,
THOMAS R. SIMPSON,