

No. 631,154.

Patented Aug. 15, 1899.

G. D. COLEMAN.

APPARATUS FOR APPLYING ANTIFOULING COATINGS TO STRUCTURES.

(Application filed Dec. 7, 1898.)

(No Model.)

Fig. 1.

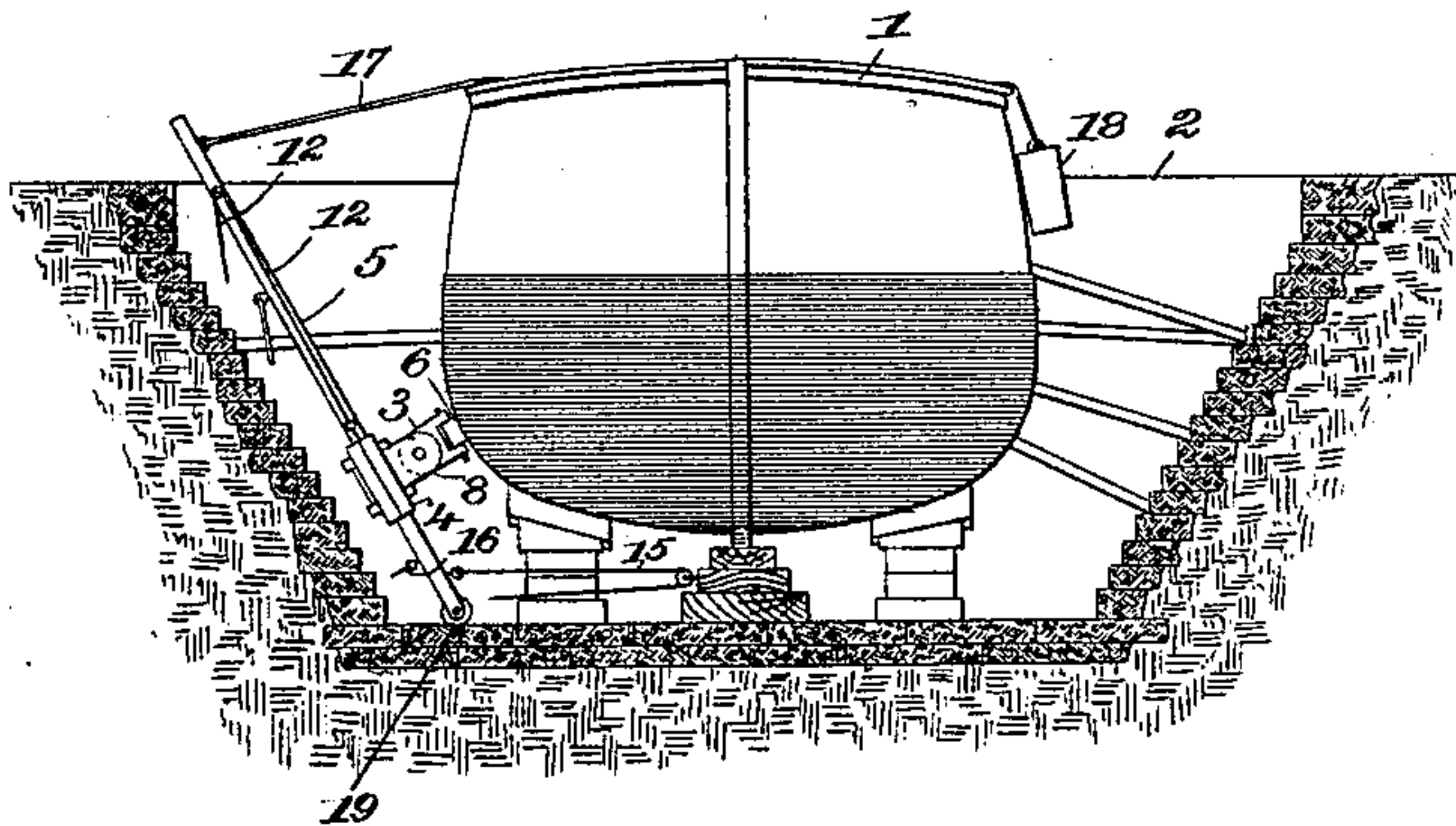


Fig. 2.

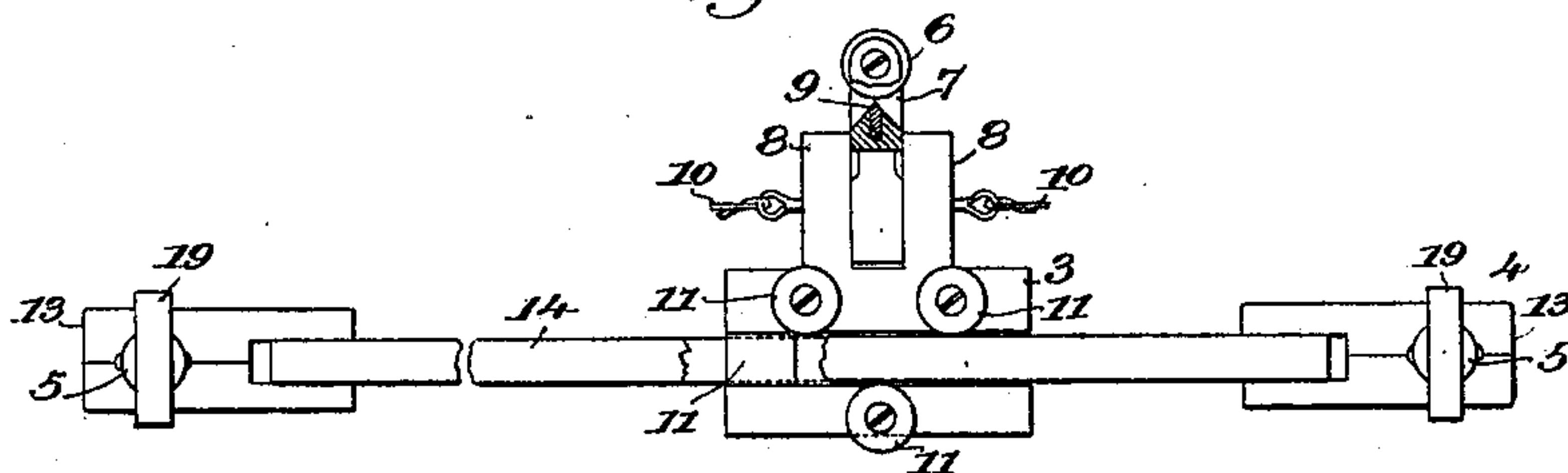
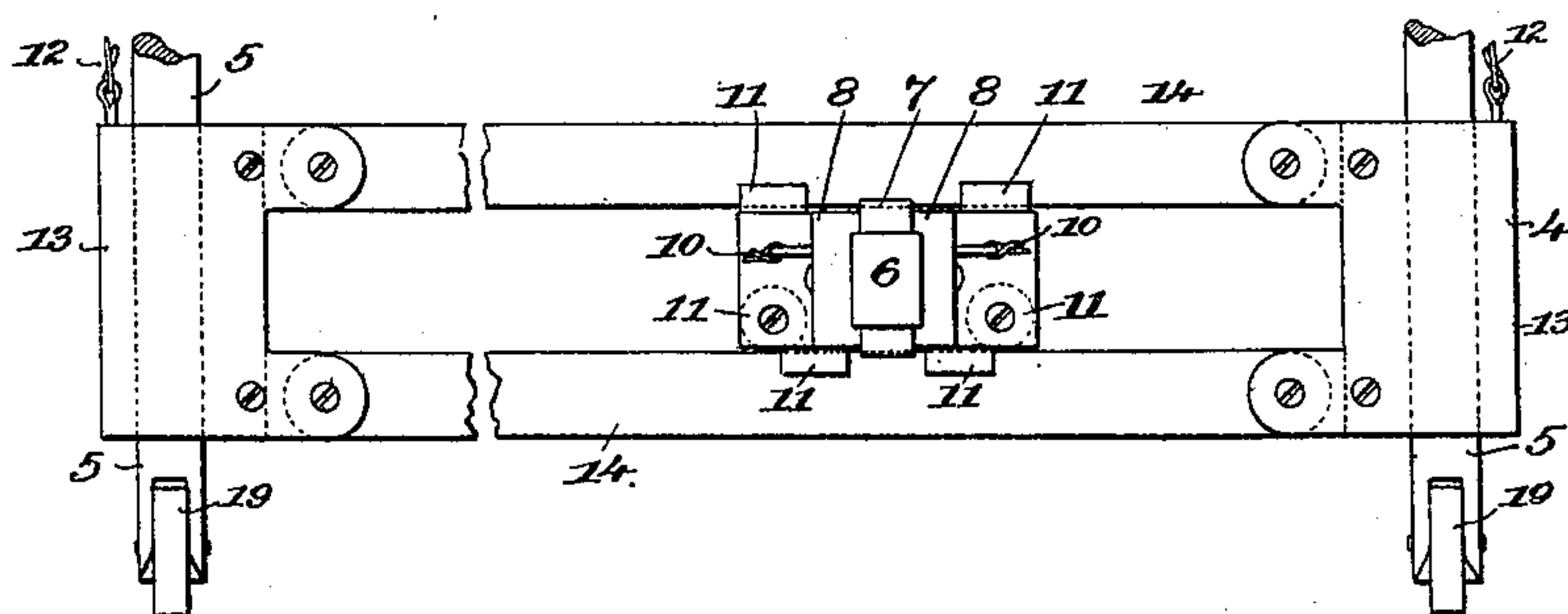


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE D. COLEMAN, OF BRIDGEWATER, MASSACHUSETTS.

APPARATUS FOR APPLYING ANTIFOULING COATINGS TO STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 631,154, dated August 15, 1899.

Original application filed April 11, 1898, Serial No. 677,141. Divided and this application filed December 7, 1898. Serial No. 698,563. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. COLEMAN, a citizen of the United States, residing at Bridgewater, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Applying Antifouling Coatings to Structures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved apparatus for applying antifouling coatings to structures intended to be submerged in water, and more particularly for applying the antifouling coating for metal structures described and claimed in an application for Letters Patent filed by me on the 11th day of April 1898, Serial No. 677,141, entitled "Antifouling coating for metal structures," of which the present application is a division.

The object of my invention is to construct an apparatus for rolling, pressing, and smoothing the outer surface of my improved antifouling coating; and to this end my invention consists of the apparatus hereinafter described, and more particularly set forth in the claims.

The preferred form of my invention is illustrated in the accompanying drawings, similar reference characters referring to similar parts throughout, in which—

Figure 1 represents a side elevation of my improved apparatus in use in a dry-dock operating upon an antifouling coating in process of application to the hull of a vessel. Fig. 2 represents an end elevation of the same with parts broken away, and Fig. 3 a front elevation of the same with parts broken away.

1 represents a diagrammatic illustration of the hull of a vessel to which it is desired to apply an antifouling coating, being supported in the usual manner in the dry-dock 2.

My invention contemplates the use of a roller which is supported by any suitable means to be rolled over the surface of the coating after the same shall have been applied to the bottom of the vessel or other structure. In the apparatus of the drawings

this roller is supported in a reciprocating carriage 3, mounted in a suitable guide-frame 4, in turn carried upon spars 5, along which the carriage is adapted to be moved transversely to the direction of the reciprocations of the roller in order to vary the position of the roller upon the surface of the antifouling coating. The roller 6 is preferably mounted upon a roller-support 7, pivotally supported in lugs 8, projected from the side of the carriage 3, so that the roller may move in a plane substantially at right angles to its path. Thus the roller as it is applied to different portions of the bottom of the vessel will adapt itself thereto, so that it shall always bear evenly upon the same. I preferably provide the roller-support with a scraper 9, which is supported therein and projected against the surface of the roller, in order to remove any material which might accidentally adhere to it. The carriage is adapted to be reciprocated by means of ropes 10, attached to opposite sides thereof, which may be actuated by hand or by power, as desired, to reciprocate the roller against the surface of the vessel. The carriage is mounted upon suitable rollers 11, which support the same in the frame 4, so that it may be freely movable therein. The frame 4 is adapted to be raised and lowered on the spars 5 by means of ropes 12, so as to vary the position of the roller with relation to the surface of the bottom of the vessel, thus providing means for changing the path of movement of the roller. The frame 4 is preferably constructed with two slides or end pieces 13, mounted upon the two spars 5, which are connected together by means of links 14, pivotally attached to the slides, so that the curvature of the surface of the bottom of the vessel may be readily compensated for. The spars are adapted to be supported in different positions by means of ropes 15 and 16, attached to the lower ends thereof, and by means of a rope 17, attached to the upper end thereof, which latter may, if desired, extend over the top of the hull and be held in place by a weight 18, depending on the opposite side thereof. The lower ends of the spars 5 will preferably be provided with rollers 19 in order to facilitate adjusting the same to various positions.

Thus it will be seen from the above description that my improved apparatus for applying antifouling coatings to structures is particularly adapted for finishing antifouling
5 coatings to be applied to the bottoms of vessels in dry-dock and that the apparatus has provision for maintaining parallelism of the roller with the surface to be operated upon, for reciprocating the same over that surface,
10 for changing the position of the path of the roller, and for securing it in different positions, as may be desired, in order to operate upon any portion of the ship's bottom.

While I have described my invention as
15 susceptible of use in applying the antifouling coating described and claimed in my copending application above referred to I would have it understood that I do not specifically limit myself thereto, as I consider
20 that it is within the purview of the present invention to apply any sort of coating to metal or wooden structures which may require the application of pressure in its process of application.

25 Having thus described my invention, I

claim as new and desire to secure by Letters Patent of the United States—

1. An apparatus for applying antifouling coatings to structures, consisting of a tool, a carriage therefor and a frame in which said
30 carriage is adapted to be reciprocated, and consisting of slides or end pieces and connecting-links pivoted thereto, and supports extended through said slides or end pieces, substantially as described.

2. An apparatus for applying antifouling coatings to structures consisting of a tool, a support for said tool, a reciprocating carriage in which said support is pivoted to move in a
35 plane substantially at right angles to the path in which the said carriage moves and a supporting-frame for said carriage, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE D. COLEMAN.

Witnesses:

T. HART ANDERSON,
HORACE VAN EVEREN.