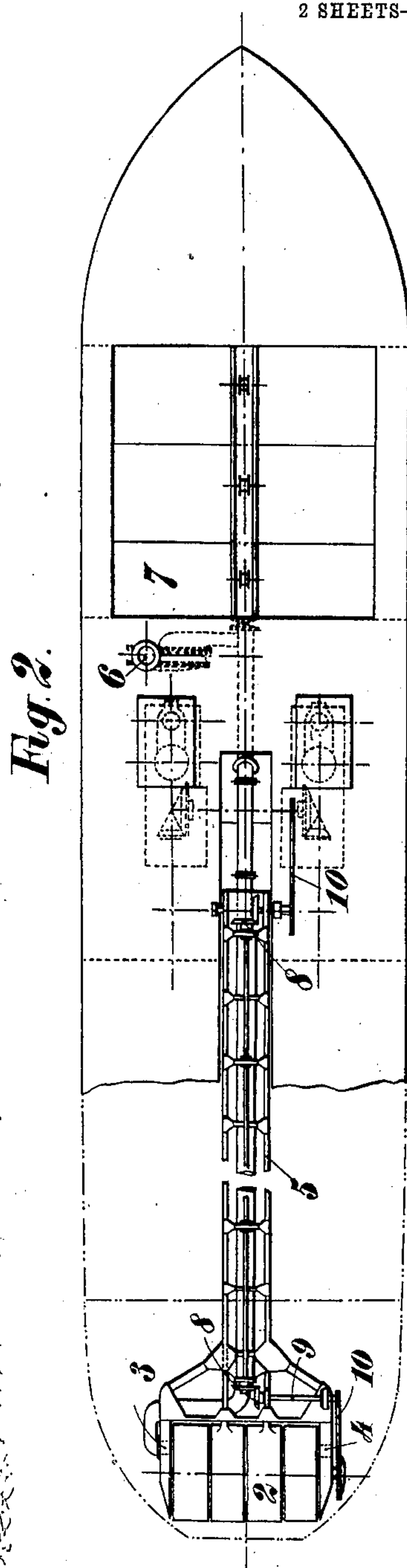
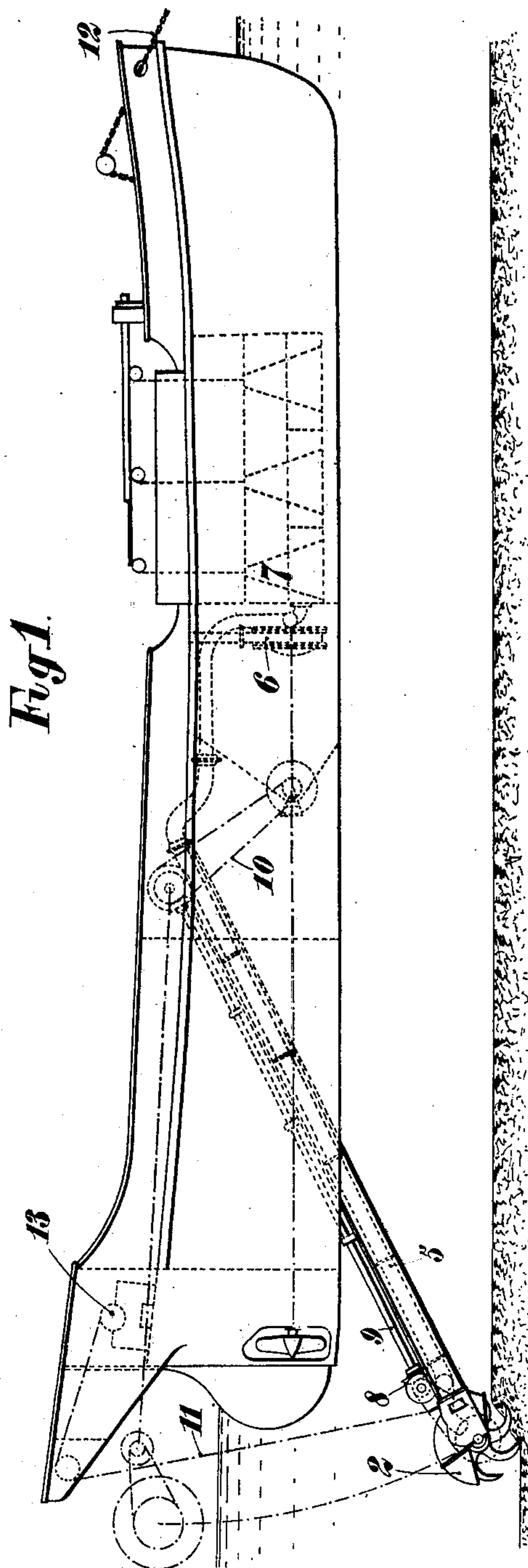


No. 826,993.

PATENTED JULY 24, 1906.

L. COISEAU.  
DREDGING MACHINE.  
APPLICATION FILED MAR. 6, 1906.

2 SHEETS—SHEET 1.



Witnesses:  
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C. H. Hester

Inventor  
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By James L. Norris  
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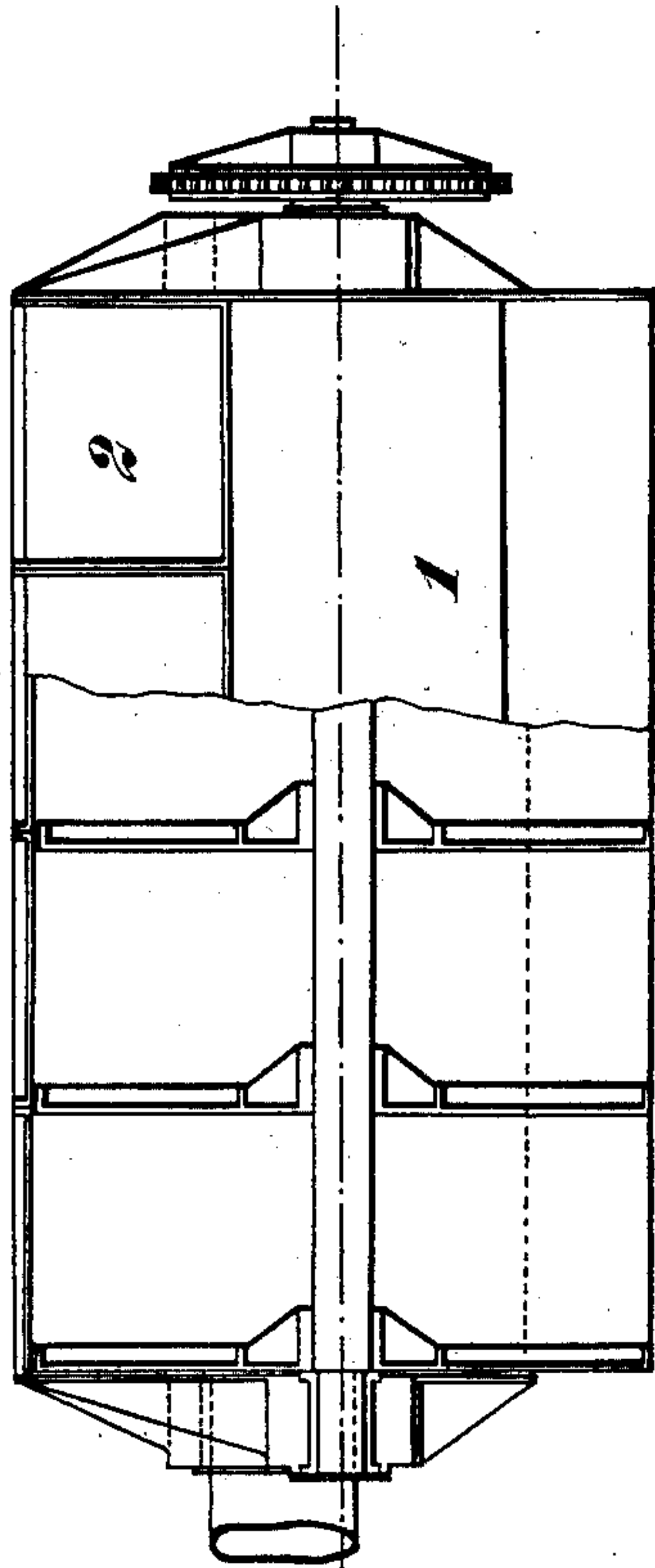
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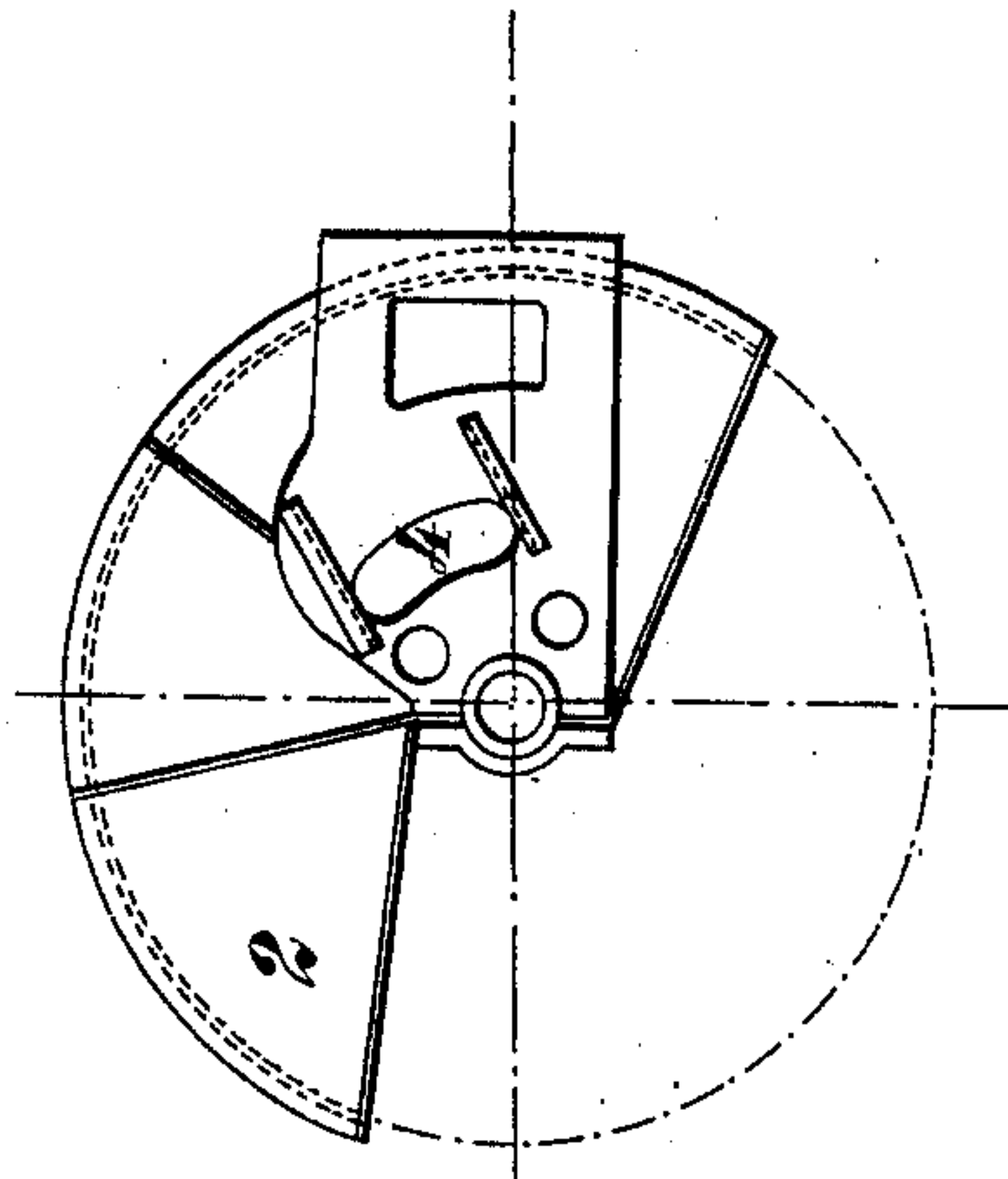
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2 SHEETS—SHEET 2

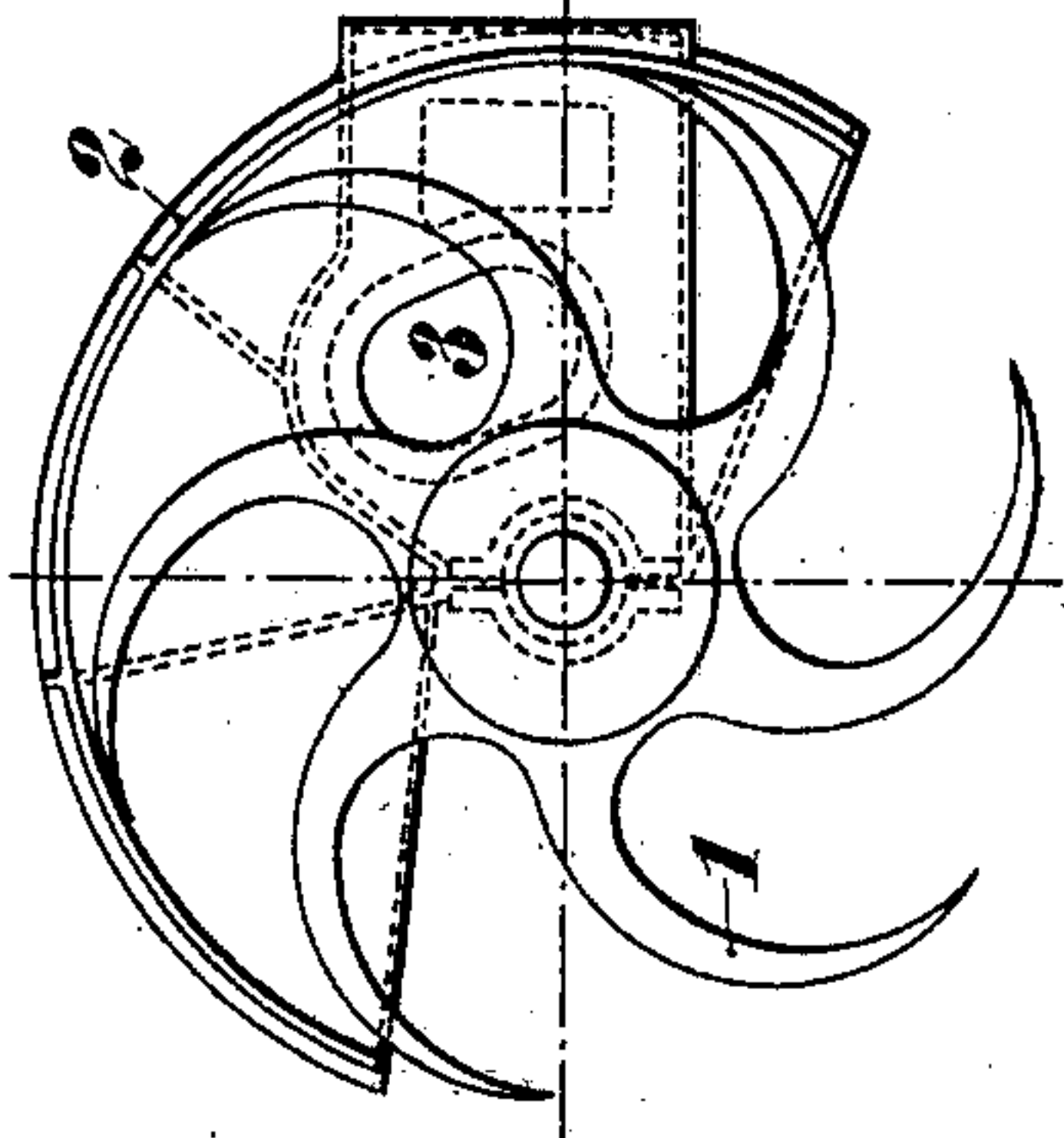
*Fig. 4.*



*Fig. 5.*



*Fig. 3.*



*Witnesses:*

*William T. Jones*  
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*JHN*



# UNITED STATES PATENT OFFICE.

LOUIS COISEAU, OF PARIS, FRANCE.

## DREDGING-MACHINE.

No. 826,993.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed March 6, 1906. Serial No. 304,523.

*To all whom it may concern:*

Be it known that I, LOUIS COISEAU, engineer, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Dredging-Machines, of which the following is a specification.

This invention has for its object a suction dredging-machine intended for dredging and sucking up mud, slimy sand, and, generally speaking, all soft materials. This dredge operates with a longitudinal pass, and consequently obviates the employment of side warping-chains, the simple end chain being sufficient. Owing to this improvement, the dredge does not destruct the channels, passages, or the like and is perfectly adapted for maintaining such works.

In the accompanying drawings, Figure 1 is an elevation of a suction dredging-machine according to the invention. Fig. 2 is a plane thereof. Figs. 3, 4, and 5 show, respectively, in transverse section, longitudinal section, and in side elevation the vane-wheel of the dredging-machine.

The arrangement comprises, broadly, a vane-wheel 1, adapted for rotation inside a half-drum 2. Upon one of the cheeks of this drum there is fixed the suction-pipe 3. In the other cheek of the drum there is formed an opening 4, which is adjustable at will and arranged symmetrically with relation to the orifice 3 of the suction-pipe. The whole constituted by the drum and the vane-wheel is fixed at the extremity of the ladder or frame 5, which is arranged in the sump of an ordinary dredge. In cases in which it is desired to apply the apparatus to an ordinary boat this frame 5 should be replaced by two lateral frames. The suction-pipe 3 passes through the middle of the frame 5 and is fitted to a suction-pump 6, discharging the material raised through the pipes into the wells 7 of the boat, which are provided with doors, or conducting it to any required place through pipes, passages, or the like.

The vane-wheel 1 is displaced by some appropriate assemblage of transmission parts—for example, by means of bevel-pinions 8, shafts 9, and endless chains 10. The whole, formed by the drum 2 and the vane-wheel 1,

is suspended by means of a cable 11, wound upon a winch 13, situated upon the dredge.

In using the apparatus the vane-wheel is lowered onto the surface which is required to be dredged, and is then rotated; the dredge being at the same time caused to advance by pulling upon the front chain 12. By these two movements the vanes of the wheel 1 attack the ground, remove a certain quantity of it, and bring it in front of the suction-pipe 3. The pump raises the material, together with a certain quantity of water entering through the opening 4 in the cheek of the drum, the aperture of which may be regulated at will. This water in traversing the vane lengthwise carries with it the material removed.

The orifices for the suction and admission of water are arranged in such a manner that water is unable to enter except by the space caused by the play left between the edge of the vanes and the drum and that left between the cheeks of the drum.

The materials raised are displaced either by the suction of a pump or by means of a compressed-air ejector to any desired position.

The vane-wheel is very wide, thereby permitting it to operate with a longitudinal pass without side warping-chains.

Having thus described and ascertained the nature of my invention and in what manner the same may be performed, I declare that what I claim is—

A suction dredging-machine having a vane-wheel bearing on the surface which is required to be dredged, a half-drum in which the vane-wheel is rotatably mounted, a suction-pipe, a pump or an ejector connected to the upper part of the suction-pipe, an orifice provided in one of the cheeks of this drum, for receiving the lower end of the suction-pipe, and an adjustable opening provided in the other cheek of the drum opposite to the suction-orifice, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS COISEAU.

Witnesses

EMILE KLOHE,  
PAUL BLUM.