

(No Model.)

J. S. DANENS.
DREDGING MACHINE.

No. 582,180.

Patented May 11, 1897.

Fig. 1.

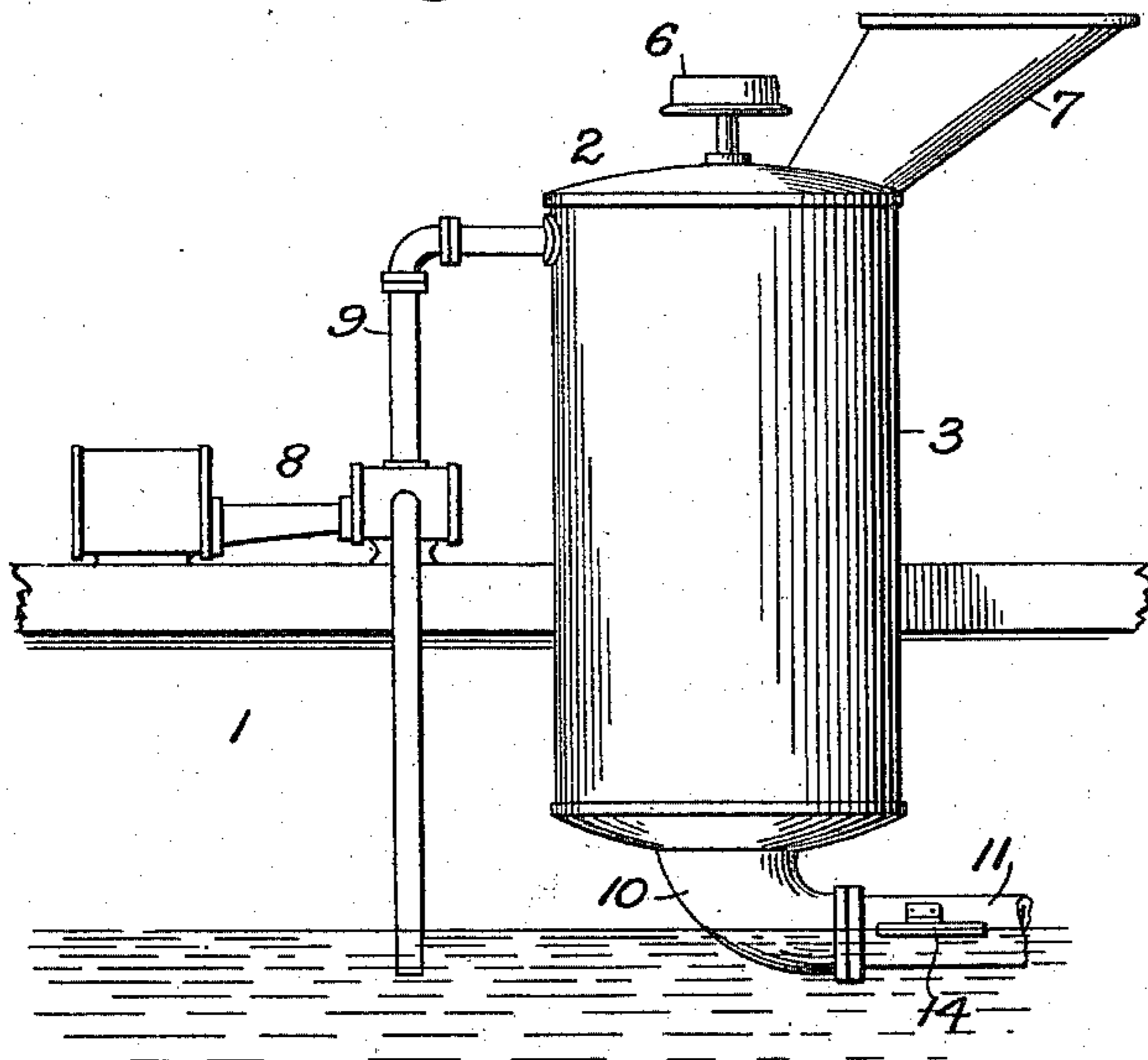


Fig. 2.

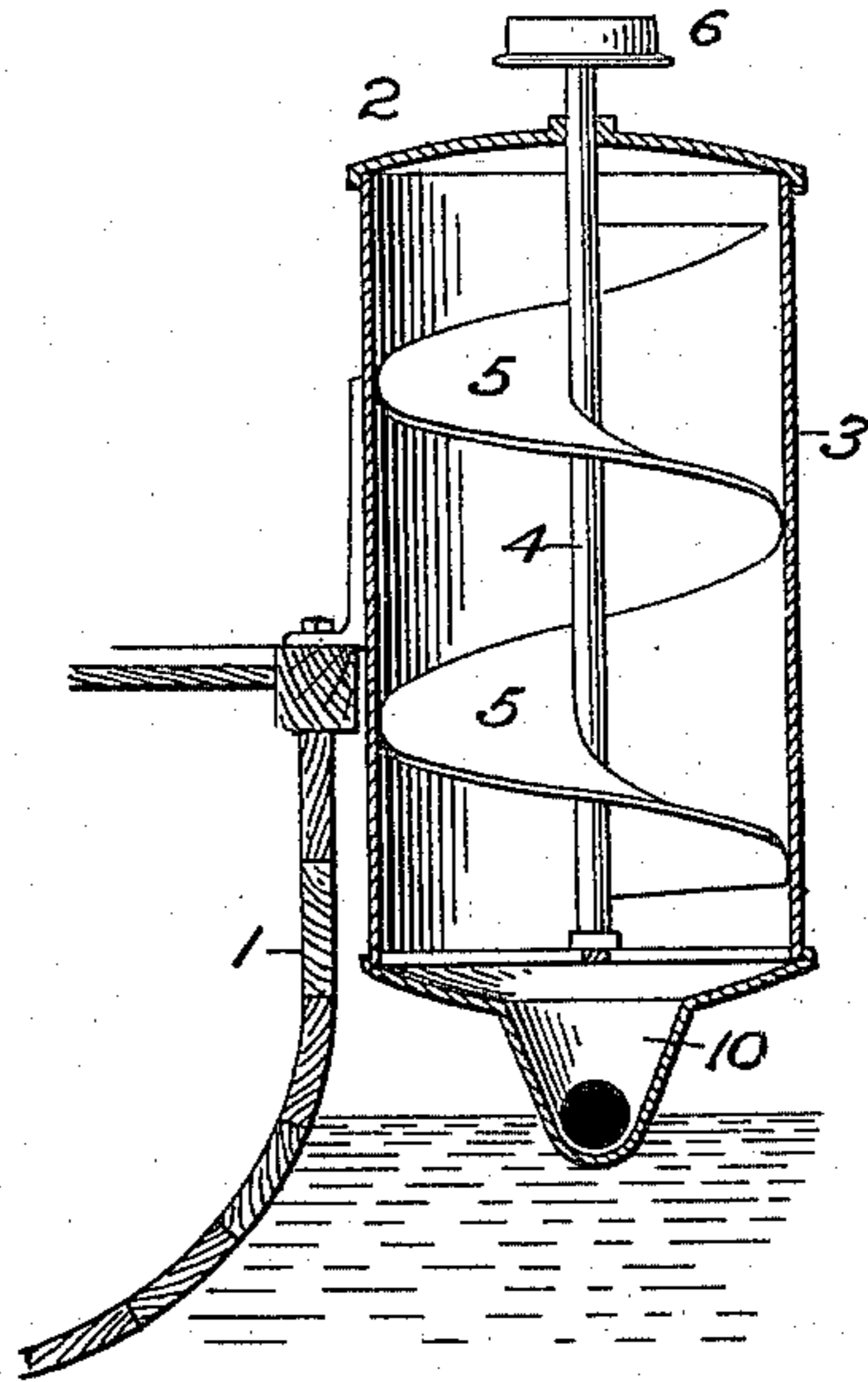


Fig. 3.

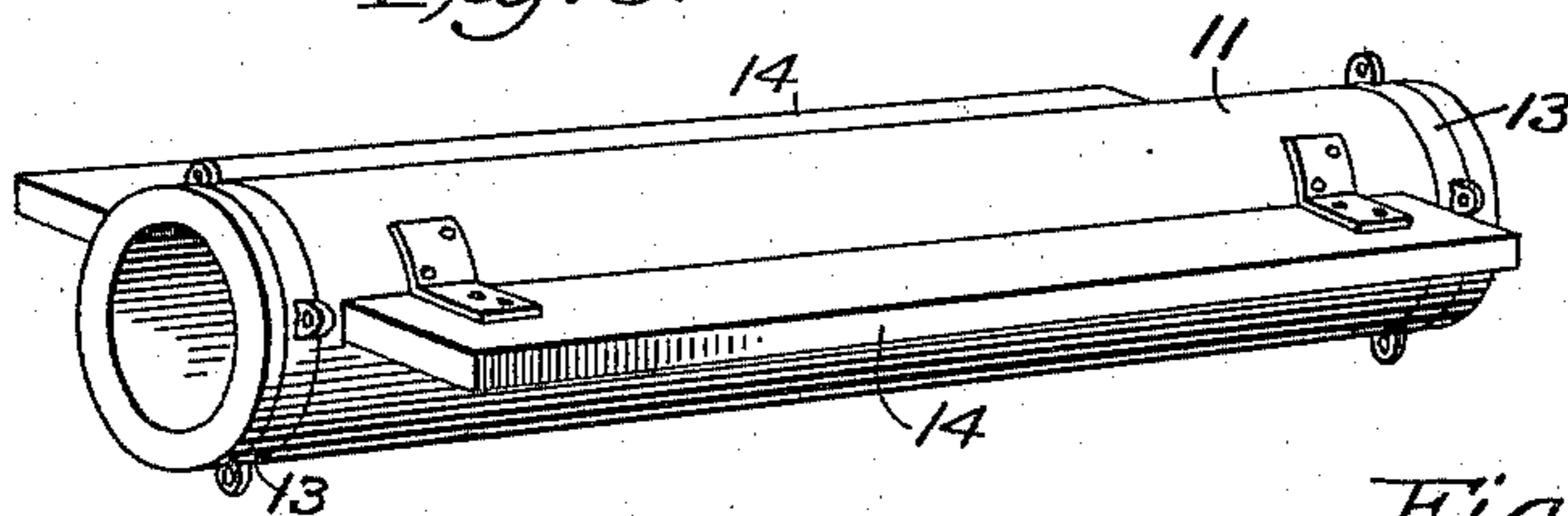


Fig. 4.

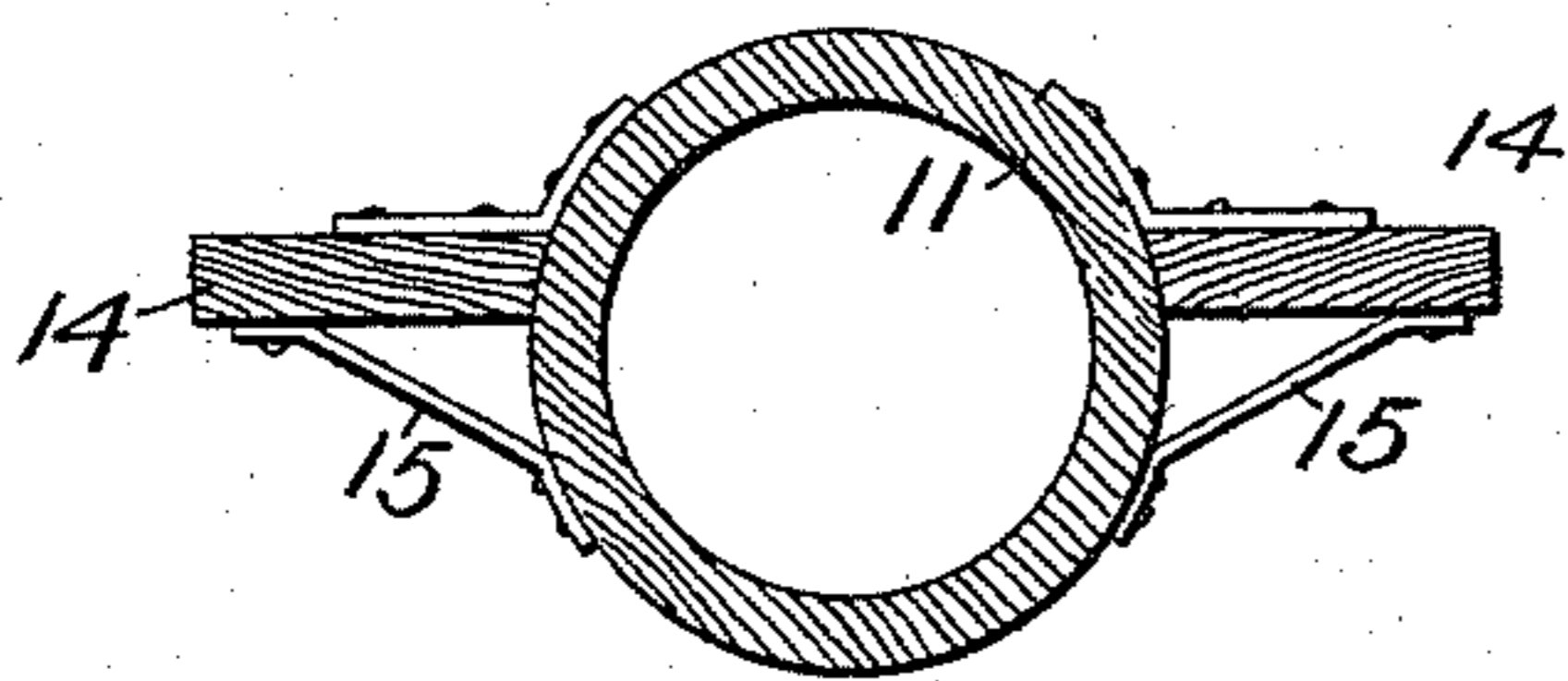
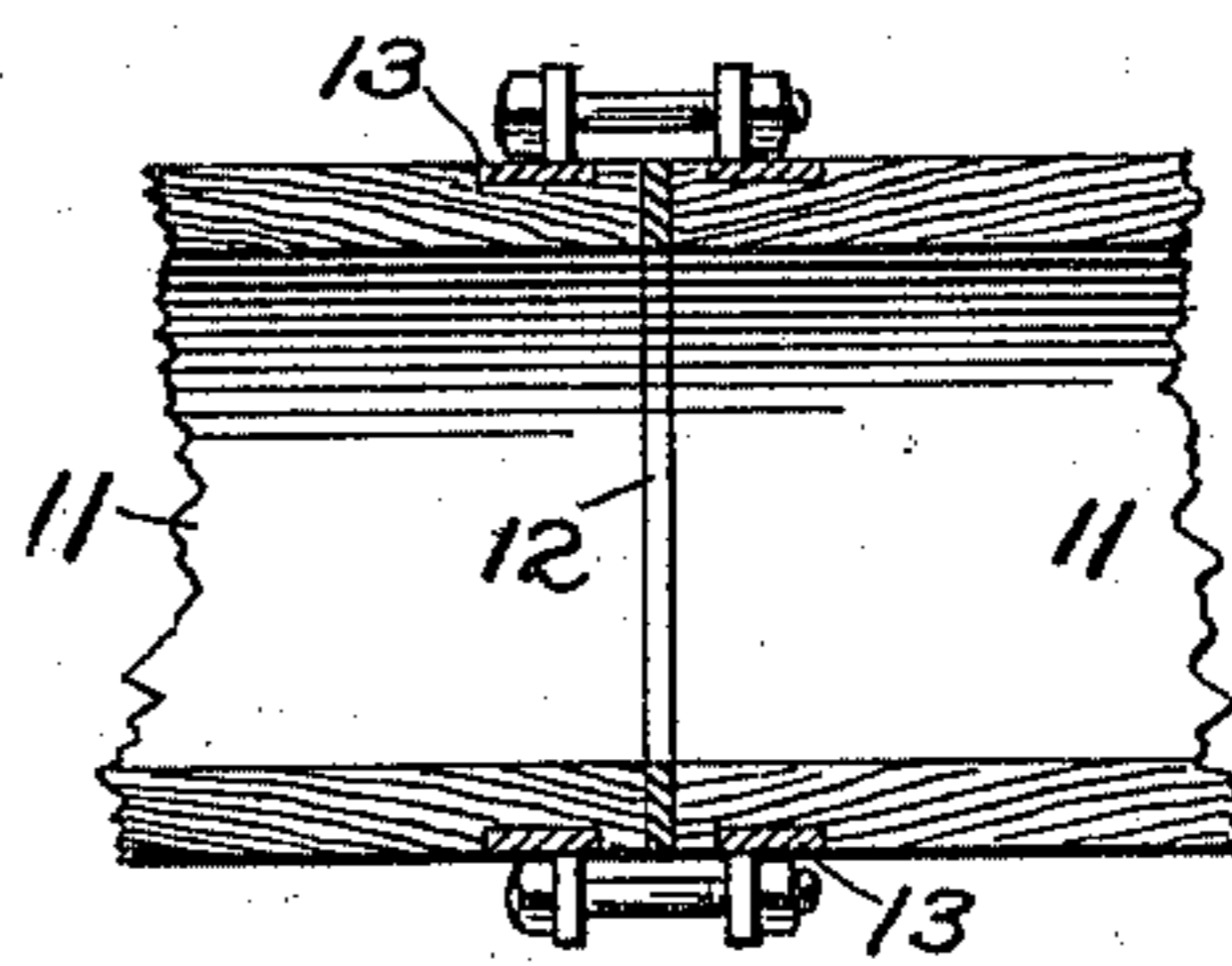


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN S. DANENS, OF CARVER, MINNESOTA.

DREDGING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 582,180, dated May 11, 1897.

Application filed July 20, 1896. Serial No. 599,887. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. DANENS, a citizen of the United States, residing at Carver, in the county of Carver and State of Minnesota, have invented certain new and useful Improvements in Dredging-Machines; 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 certain new and useful improvements in dredging-machines.

In most of the dredging-machines now in use the dredgings are discharged upon the dredging-machine itself or upon a scow attached thereto and afterward conveyed to the place where they are to be dumped and discharged therefrom by hand. This is an expensive method, not only because of the additional labor required, but because of the time involved in doing it. By my invention I provide means whereby the dredgings are conveyed directly from the dredger or scow to the shore where they are to be discharged.

The invention consists of a cylindrical force-pump secured to one side of a dredging-machine, a shaft rotatably mounted therein, a spirally-arranged blade on said shaft, a chute leading into the upper end of the pump-casing for admitting dredgings to the interior of said casing, a pump for forcing water to the interior of said casing, means for rotating said shaft, a discharge-spout upon the lower end of said casing, and a series of wooden pipes of peculiar construction leading from said spout to the shore.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a side elevation of a dredging-machine having my improvements applied thereto. Fig. 2 is a cross-section through the same. Fig. 3 is a detail perspective view of one of the sections of wooden pipe. Fig. 4 is a cross-section of the same. Fig. 5 is a longitudinal section through two of said pipes.

Like reference-numerals indicate like parts in the different views.

The dredge 1 is of the usual form of construction, having means for raising the dredgings from the bed of the stream and discharging them upon the machine itself or upon a scow located adjacent thereto. Secured to one side of the dredging-machine 1 is a pump 2, having a cylindrical casing 3, with a vertically-disposed shaft 4 therein having a spirally-arranged blade 5 upon it and a drum or roller 6 upon its upper end, by means of which it may be connected through a suitable belt with an engine or other motor. Leading into the upper end of the cylindrical casing 3 is a chute or hopper 7, upon which the dredgings are dumped directly from the dredging-buckets or by any other suitable means. A pump 8 is connected to the pump 2 by means of a pipe 9, leading into the upper end of the casing 3 for discharging water into said casing to be mixed with the dredgings entering from the chute or hopper 7. A discharge spout or funnel 10 is secured to the lower end of the casing 3, and to this is connected a wooden pipe 11, made up of a number of sections of short pipe coupled together by bands or leather 12, which are held in place thereon by means of draw-hoops 13. These pipes lead to the shore to the point at which the dredgings are to be dumped, and each section is formed with laterally-extending wooden arms 14, supported by suitable bracing-rods 15, which enable said sections of pipe to float upon the surface of the water.

In using my device power is applied to rotate the shaft 4 by means of a belt or apron passing around the drum or pulley 6 upon the upper end of said shaft. At the same time the dredgings are discharged into the casing 3 through the chute 7, and water is admitted to said casing from the pump 8 and pipe 9. The water and dredgings being thoroughly mixed and in a fluid condition are forced outwardly from the discharge-spout 10 by means of the spirally-arranged blade 5 and conveyed through the pipe 11 to the point on the shore where the dredgings are to be dumped.

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

1. The combination with a dredging-machine, of a cylindrical force-pump secured to one side thereof, a shaft rotatably mounted

therein, a spirally-arranged blade on said shaft, a chute leading into the upper end of said pump-casing for admitting dredgings to the interior of said casing, a pump for forcing
5 water to the interior of said casing, means for rotating said shaft, a discharge-spout upon the lower end of said casing, and a pipe leading from said spout to the shore, substantially as and for the purpose described.

10 2. In a device of the character set forth, the combination with a dredging-machine and a force-pump for discharging the dredgings from said machine, of a pipe connected to the lower end of said pump, made up of a series
15 of sections, bands of leather and draw-hoops

for connecting said sections together, laterally-extending wooden arms on said pipe, and angularly-arranged bracing-rods secured to the sides of said pipe-section and to the under sides of said wooden arms whereby the
20 same are adapted to float upon the surface of the water, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscrib- 25
ing witnesses.

JOHN S. DANENS.

Witnesses:

H. O. MUEHLBERG,
GEO. KNOBLAUCH.