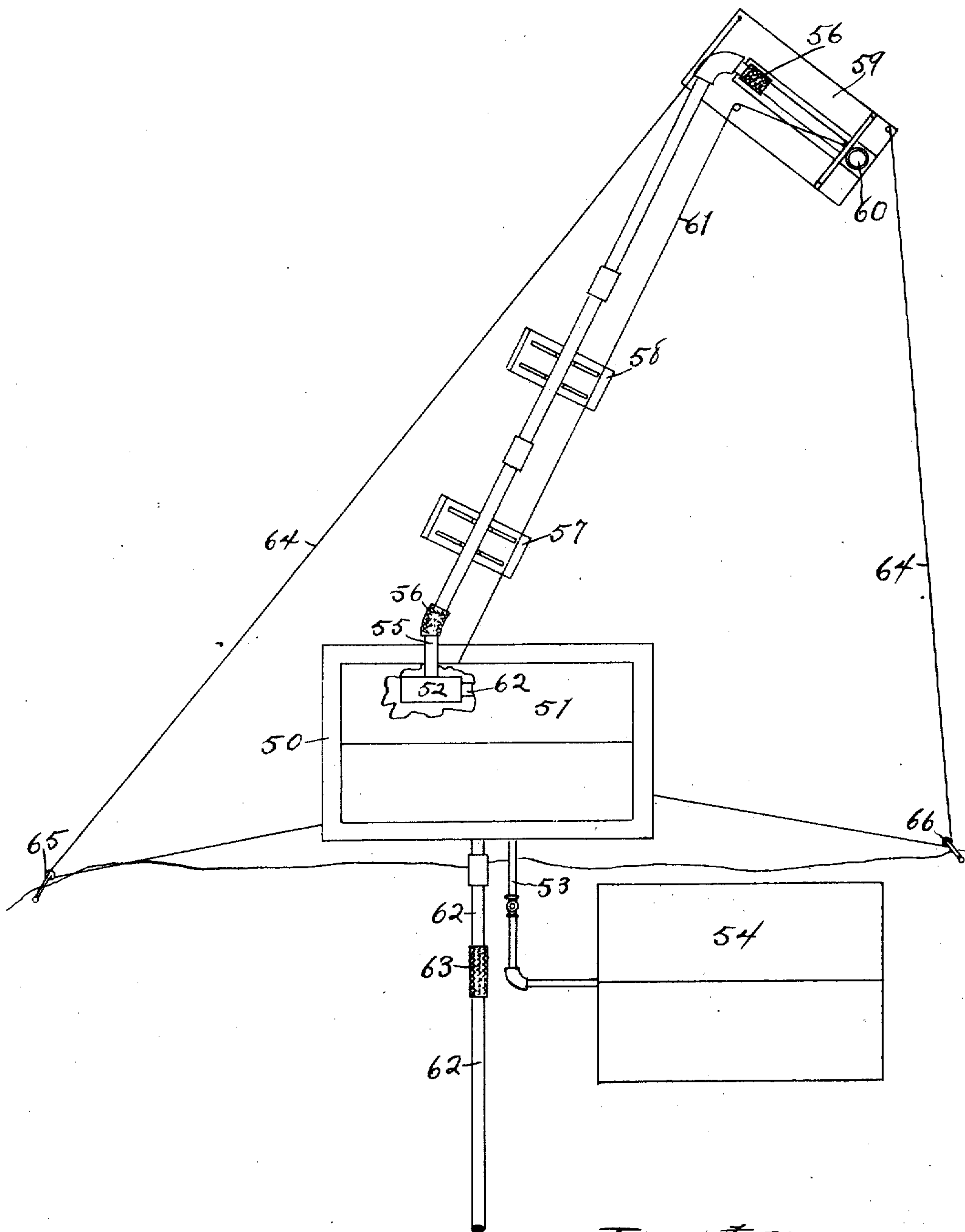


921,910.

**Patented May 18, 1909.**



Inventor:  
Martin Swintek.  
By J. H. Schwab Atty

# UNITED STATES PATENT OFFICE.

MARTIN SWINTEK, OF DES MOINES, IOWA

## SAND-PUMPING PLANT.

No. 921,910.

Specification of Letters Patent.

Patented May 18, 1909.

Original application filed September 25, 1906, Serial No. 336,646. Divided and this application filed July 23, 1908. Serial No. 445,420.

*To all whom it may concern:*

Be it known that I, MARTIN SWINTEK, a citizen of the United States of America, and resident of Des Moines, Polk county, Iowa, have invented a new and useful Sand-Pumping Plant, of which the following is a specification.

The object of this invention is to provide improved means for gathering, elevating and washing sand.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawing, in which the figure is a plan of the complete apparatus or plant, in so far as it relates to gathering, elevating and washing sand.

This invention is illustrated and described in an application for Letters Patent filed by me September 25, 1906, serially numbered 336,646, and is divided out of such application.

In the construction of the apparatus as shown, a scow 50 is moored in a stream or body of water covering a bed or natural deposit of sand, and a pump-house 51 is carried on said scow. A pump 52 is carried by the scow 50 within the house 51 and is driven by any desired power, in this instance by an engine in the pump-house fed by steam through a pipe 53 from a boiler or boilers in a house 54 on the shore of the stream or body of water. A receiving pipe 55 made in sections flexibly connected by joints 56 is supported on scows 57, 58 and 59. One end of the pipe 55 communicates with the pump 52, and the opposite end of said pipe is fitted with a suction nozzle or mouth 60 which is connected by a cable to a drum (not shown) in the pump-house 51. The outermost section of the pipe 55 and the nozzle or suction mouth thereon may be raised and lowered by a cable 61 to adapt said mouth to the bed over which it is designed to work. A delivery pipe 62 leads from the pump 52 to a point of discharge on the shore of the stream or body of water, and said delivery pipe is made in sections flexibly connected by joints 63. The delivery pipe 62 may be suitably supported laterally of the pump-scow 50. The scow 59 is attached to a cable 64, and said cable is rove through sheaves 65, 66 longitudinally removed from the scow 50 and is adapted to be connected to a drum (not

shown) in the pump-house. By means of the cable 64 the scow 59 may be moved in an orbit relative to the pump, and the scows 57, 58 move with it under the influence of the receiving pipe 55 supported thereon.

In practical use, the sand and water can be pumped from the bed of a stream or body of water through the mouth 60, pipe 55, pump 52 and pipe 62, and be delivered on the land or in any desired receptacle mounted thereon. Either of the sections of the pipe 56 may be removed and the scow 59 be located nearer to the scow 50 for the initial operations of pumping sand adjacent to the latter scow, and as the deposit of sand is exhausted, section after section may be supplied to the pipe 55, and the scows 57, 58, or multiples thereof, be furnished for the support of such sections, in this manner providing for the removal of sand over a large area. The excavations made by removing sand from a given area are allowed to fill with other sand brought down by the current of the stream or drifted into the excavations by agitation of the body of water during the time employed to remove the deposits of sand from other and more extensive areas, after which the first area may again be worked.

I claim as my invention—

1. In a sand-pumping plant, a moored scow, a pump carried thereby, a delivery pipe leading from said pump, a series of spaced scows, a receiving pipe extending across said scows and supported by the latter, a flexible connection between one end of said receiving pipe and said pump, an end scow extending beyond the other scows and bearing the outer end of said receiving pipe, a suction nozzle flexibly connected to said outer end of said receiving pipe and extending along the length of said end scow, cable connections from said suction nozzle to said first named scow, and cable connections from the ends of said end scow to said first-named scow to enable said end scow to be moved.

2. In a sand-pumping plant, a moored scow having a pump thereon, a discharge pipe leading from said pump, a receiving pipe connected to said pump and having a suction nozzle flexibly connected to its outer end at an angle thereto, a scow to support said suction nozzle and a series of independent scows to support said pipe, means to adjust the altitude of said suction nozzle connected to the



latter from the first-named scow, and means controlled from said first-named scow to enable the position of the suction nozzle to be adjusted.

5 3. In a sand-pumping plant, a boiler house located on land adjacent a body of water, a scow moored on the water adjacent to said boiler-house, a power-house on said scow, an engine in said power-house, steam-pipes connecting the boiler-house with the engine, a  
10 pump in said power-house adapted to be driven by said engine, a delivery pipe leading from said pump to the land, said delivery pipe formed of sections flexibly connected, a  
15 receiving pipe leading from said pump over the water and formed of sections flexibly

connected, a suction nozzle on the extremity of the receiving pipe, means for supporting the receiving pipe, a scow supporting the suction nozzle, and cables connected to said suction nozzle and to the scow supporting said nozzle, and also connected to said engine, whereby the nozzle may be raised and lowered and the nozzle-supporting scow may be moved circumferentially of the power-house  
20 scow. 25

Signed by me at Des Moines, Iowa, this sixth day of December, 1907.

MARTIN SWINTEK.

Witnesses:

S. C. SWEET,

J. J. STUCKEY.