

(No Model.)

L. W. BATES.  
DREDGING MACHINE.

No. 527,762.

Patented Oct. 23, 1894.

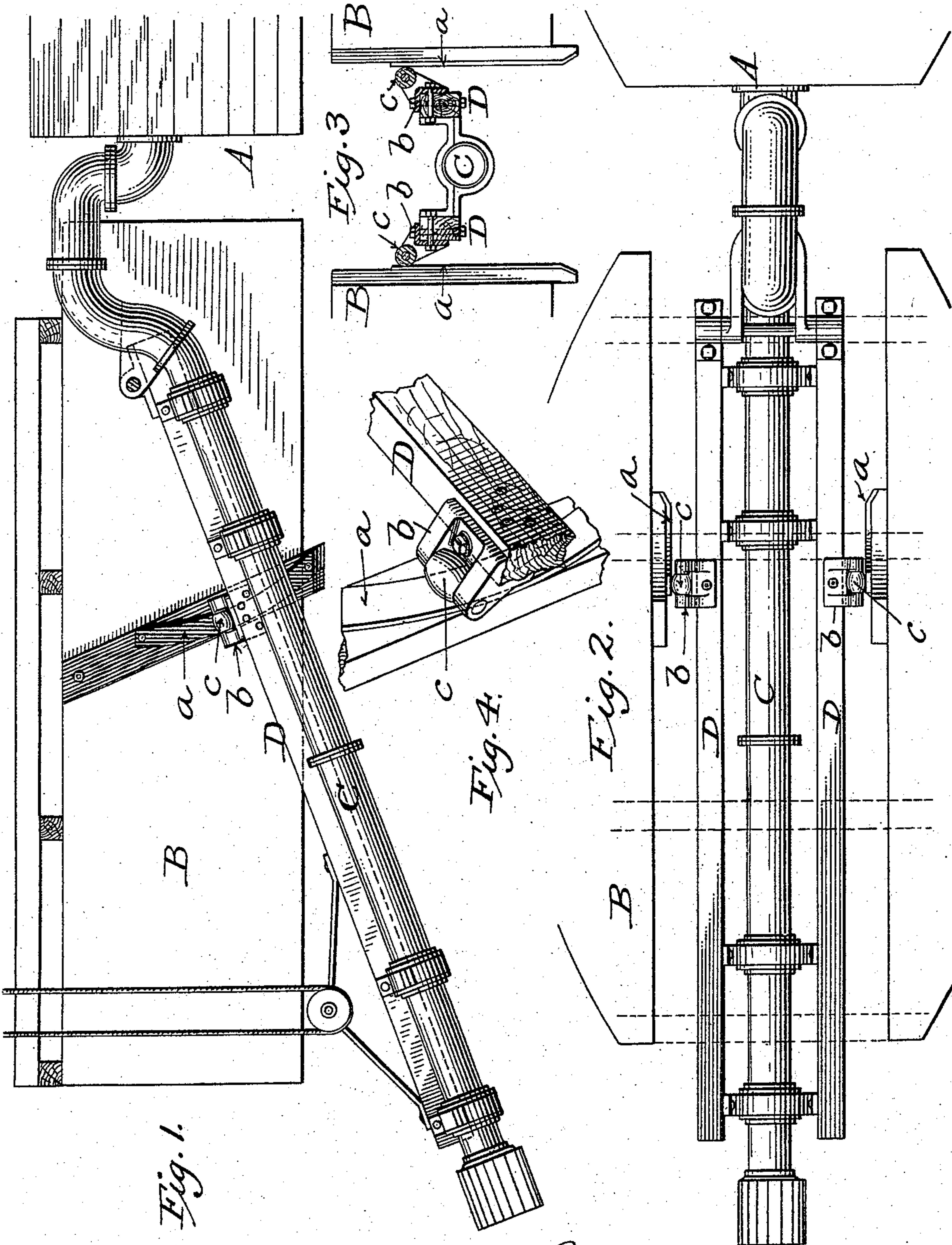


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

WITNESSES

C. E. Burdine.  
C. P. Bull.

INVENTOR

Lindon W. Bates  
By Dodge & Sons Attorneys.



# UNITED STATES PATENT OFFICE.

LINDON W. BATES, OF CHICAGO, ILLINOIS.

## DREDGING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 527,762, dated October 23, 1894.

Application filed September 4, 1894. Serial No. 522,014. (No model.)

*To all whom it may concern:*

Be it known that I, LINDON W. BATES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dredging-Machines, of which the following is a specification.

My invention relates to dredging machines and has reference more particularly to that class of machines in which the material is elevated through a pivoted suction-pipe, carried by the dredge boat or by a ponton in advance of the boat; the ponton or the boat being provided with a well-way in which the suction-pipe rises and falls as required. The suction-pipe is provided with a rotary cutter, but when cutting or working in hard soil, the cutter, meeting with resistance, tends to throw the suction-pipe laterally against the side walls of the well-way, thus causing undue vibration, wear, and, sometimes, injury to the suction-pipe or its ladder. To overcome these objections is the object of the present invention. This is accomplished by the construction shown in the drawings, in which—

Figure 1 is a longitudinal sectional view of so much of a dredging machine as is necessary to illustrate the present invention; Fig. 2, a plan view; Fig. 3, a transverse sectional view through the suction-pipe; and Fig. 4, a perspective view of certain details.

In the figures A indicates the dredge-boat; B, the ponton; C the pivoted suction pipe, and D the ladder, all of which may be of most any desired construction.

The ponton is provided with the usual well-way and on the side walls of the latter are arranged the tracks or plates *a* which will advisably be curved on the arc of a circle concentric with the pivot of the suction pipe: the lower ends of the tracks diverging as

shown in Fig. 3 so that in case the suction pipe should pass off the tracks or plates, its re-entrance therebetween will be facilitated.

Mounted upon the side timbers of the ladder are brackets *b*, in which are journaled wheels or rollers *c* which latter, as shown, bear upon the tracks or plates *a* carried by the ponton.

From the foregoing it will be seen that even though the cutter meet with unusually hard soil, the suction pipe and ladder will not be thrown laterally against the side walls of the ponton; and it will also be noted that should the suction pipe run off the lower ends of the tracks or plates *a*, the beveled or inclined ends of the ladder facilitate the re-entrance of the suction-pipe.

What I claim is—

1. In combination with a dredge boat and its pivoted ladder and suction-pipe; a ponton provided with a well-way; the tracks or plates *a* on the side walls of the ponton; and brackets carried by the ladder and provided with rollers to run upon the tracks.

2. In combination with a dredge boat, ladder, suction-pipe, and ponton; the tracks or plates *a* carried by the ponton and diverging at their lower ends; and the brackets and rollers carried by the ladder.

3. In combination with a boat (or ponton) provided with a well-way; the tracks on the side walls of the well-way; and pivoted suction-pipe and ladder; and rollers carried by the ladder to engage the tracks.

In witness whereof I hereunto set my hand in the presence of two witnesses.

LINDON W. BATES.

Witnesses:

WM. W. BATES,  
J. H. GLENDENING.